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ABSTRACT

This report is a product of a 3-year federally funded project examining model education programs for postsecondary students with disabilities funded since 1980 by the Office of Special Education and Rehabilitative Services. The study sought to identify and share information about strategies of successful projects and exemplary products. Chapter 1 provides an overview of the study which involved evaluating more than 100 project reports, selecting 17 as successful, and identifying specific strategies used by these projects. The second chapter provides a descriptive summary and contact information for each of the 17 selected projects. The report then focuses on specific strategies, grouped into four categories: (1) institutional and community involvement; (2) academic support services; (3) summer transition to college programs; and (4) career development. The chapter on institutional and community involvement discusses outreach strategies used to enlist the support of institutional leaders, faculty, and staff as well as community leaders from public, private, and service organizations. The chapter on academic support services identifies strategies to permit programmatic access or to foster personal student development and thereby increase students' academic success. The chapter on summer programs notes their effectiveness in equipping entering students with needed social and academic skills. The final chapter is on effective career development strategies such as providing work experiences in the community. (DB)

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Educating Students With Disabilities On Campus: Strategies of Successful Projects

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national clearinghouse on postsecondary education for individuals with disabilities

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EC 304 698

EDUCATING STUDENTS WITH DISABILITIES ON CAMPUS: STRATEGIES OF SUCCESSFUL PROJECTS

by

Laura Samberg
with Vickie Barr, Rhona Hartman, and Tracey Murray

HEATH
resource center
national clearinghouse on postsecondary education for individuals with disabilities

AMERICAN COUNCIL ON EDUCATION

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1994

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INTRODUCTION

The HEATH Resource Center of the American Council on Education, together with the Educational Testing Service (ETS) and the Association on Higher Education and Disability (AHEAD), has completed its work on the three-year (1990-1993) federally funded study, *Postsecondary Education Program: Evaluation and Dissemination of Successful Practices*. The study examined model postsecondary education and disability programs funded since 1980 by the U.S. Department of Education's Office of Special Education and Rehabilitative Services (OSERS). Objectives of the study were to identify and share information about strategies of successful projects and exemplary products developed by projects. The target audience for dissemination of this information includes individuals concerned with postsecondary programs for students with disabilities, such as disability support service providers, faculty, administrators, and students with disabilities themselves and their advocates, as well as high school special educators, counselors, and Vocational Rehabilitation staff.

The need for a study of this nature and scope became clear as the number of students with disabilities enrolled at two- and four-year college campuses increased significantly over the past 15 years. In 1991, 8.8 percent of all first-time, full-time freshmen reported having some type of disability, compared with 2.6 percent in 1978. Accordingly, the federal government has supported efforts to increase the successful participation of students with disabilities in postsecondary education by awarding model demonstration grants to two- and four-year colleges, universities, vocational and technical institutions, and other non-profit educational agencies.

Until the *Successful Practices* study was conceptualized, no systematic method existed for evaluating these model demonstration grants or perpetuating their positive results. A premise of the study was that if information was shared about lessons learned and goals achieved by project directors, the knowledge base about factors enhancing the success of postsecondary students with disabilities would become richer. While the study has shared this information through disseminating exemplary products as well as strategies of successful projects, **Educating Students with Disabilities on Campus** focuses its discussion only on strategies, and not on products. The process of identifying and disseminating exemplary products is briefly described in Chapter 1. **Educating Students with Disabilities on Campus** describes the strategies used by projects that the Advisory Panel of the study identified as successful; thus, it is a vehicle through which the lessons learned may live on to inform those who seek to promote the successful participation of students with disabilities in postsecondary education.

An Advisory Panel was convened to guide staff in carrying out the *Successful Practices* study. The ten Panelists, some of whom have disabilities themselves, are experienced in serving students with a wide range of disabilities, as well as in the areas of program evaluation, disability support services, and postsecondary education administration at two- and four-year, public and private institutions. The members of the Advisory Panel were:

Joseph Rosenstein, Ex officio, U. S. Department of Education,
Office of Special Education Programs, Washington, DC

Percy Bates, Professor of Education - School of Education and
Director of Programs for Educational Opportunity,
University of Michigan, Ann Arbor, MI

Ruth Bork, Dean and Director, Disability Resource Center,
Northeastern University, Boston, MA

Laurel A. Brady, Executive Director, Royce Learning Center,
Savannah, GA

Patricia Campbell, Director, Campbell-Kibler Associates,
Groton, MA

Catherine Campisi, Assistant Deputy Director, Transition Programs
and Services, California State Department of Rehabilitation,
Sacramento, CA

Lizanne DeStefano, Assistant Professor, Department of Educational Psychology,
University of Illinois, Champaign, IL

Warren King, Director, Office for Disability Services, Ohio State University,
Columbus, OH

Ernest Rose, Associate Dean, School of Education and Human Services,
Eastern Montana College, Billings, MT

William Scales, Director - Disability Support Services and
Assistant Director - Counseling Center, University of Maryland,
College Park, MD

Stephen H. Simon, Director, Disability Services, Wright State University,
Dayton, OH

Panelists and staff from ETS, HEATH, and AHEAD devoted numerous hours to the *Successful Practices* study. Six day-and-a-half Advisory Panel meetings were built into the study, two in each of its three years. Between meetings, Panelists reviewed information prepared by staff that would assist them in first selecting successful projects and then determining the

strategies of those successful projects. The tasks carried out by Panelists and staff throughout the duration of the study are described in Chapter 1.

CHAPTER 1.
OVERVIEW OF *SUCCESSFUL PRACTICES* STUDY

STRATEGIES OF SUCCESSFUL PROJECTS

Identifying Successful Projects

In order to ultimately identify strategies used by successful projects, the Advisory Panel first developed a process for deciding which projects were to be included in the study, and then developed a process for determining which of those were successful. Panelists first determined that in order for a project to be included in the *Successful Practices* study, it must have met a majority of the following criteria:

- the project was distinctive and went beyond the typical services provided to comply with Section 504 of the Rehabilitation Act of 1973;
- there was an identified strategy/process that was worth disseminating;
- the strategy/process was transferable;
- there was evidence of effectiveness in a final report or other publication;
- there were documented project accomplishments; and,
- there was a sufficient range and type of information available.

Panelists and staff applied the criteria to more than 100 eligible projects funded since 1980 and selected 38 that met the criteria. ETS staff wrote extensive summaries describing each of these 38 projects, using information garnered from final reports and in-depth telephone interviews with project directors.

Panelists then determined whether each of the 38 projects were successful, basing their judgment on information in the extensive summaries as well as points raised during discussions of the Panel as a whole. Panelists looked for positive change, focusing on student outcomes, faculty and staff outcomes, institutional outcomes, and/or employer outcomes. Selected site visits were made for the purpose of collecting additional information about some projects. **The Advisory Panel identified 17 projects as successful**. These 17 projects are described in Chapter 2.

Identifying Strategies of Successful Projects

When Panelists determined that a project was successful, they then identified, for dissemination, strategies used by the project. Panelists' decision to focus on disseminating information about strategies was based on the belief that it is unlikely that an entire successful project would or could be replicated; rather, individual strategies are more likely to be identified for implementation. Strategies were defined as activities or other aspects of a project that contributed to positive change, affecting either students, faculty and staff, or the institution as a whole.

Approximately half way through the study period, HEATH staff began the process of compiling **Educating Students with Disabilities on Campus,** which includes information on strategies used by the 17 successful projects. First, HEATH staff grouped the strategies identified by Panelists into four topical categories: *Institutional and Community Involvement, Academic Support Services, Summer Transition to College,* and *Career Development*. Chapters three, four, five and six of **Educating Students with Disabilities on Campus** correspond respectively to these four categories of strategies. Among these four categories, the Advisory Panel identified more than 50 strategies. The information on strategies presented in this document is derived from the following sources: the extensive project summaries prepared by ETS staff, additional telephone interviews conducted by HEATH staff with project directors on their projects' use of the strategies, and discussions of the Advisory Panel about the four topics of strategies. Readers are encouraged to select from these strategies those that can be incorporated into their own programs.

It should be noted that the area of learning disability was a priority of the federal government during the time period in which these model programs were funded. Therefore, most of the projects discussed in **Educating Students with Disabilities on Campus** served students with learning disabilities, and some exclusively targeted students with learning disabilities. Accordingly, while most of the strategies discussed within this document are relevant for students with a broad range of disabilities, and were in fact used by students with a broad range of disabilities in some funded projects, the user group most common to all the strategies is nevertheless students with learning disabilities.

Panelists and staff believe the information in **Educating Students with Disabilities on Campus** about the various strategies represents the most current and carefully compiled knowledge concerning best practices that the postsecondary disability community has to date, based upon the study's review of federally-funded projects. Readers are invited not only to

make practical use of the information in whatever ways they can, but also to use it as a stepping-off point for conducting further research designed to contribute to the ever-increasing growth of knowledge in the postsecondary disability community.

EXEMPLARY PRODUCTS

The other goal of the *Successful Practices* study, although not a focus of **Educating Students with Disabilities on Campus**, was to disseminate exemplary products developed by funded projects. Products were considered to be self-standing items, such as guidebooks, curricula, manuals, and videotapes. Brochures, newsletters, journal articles, and individual forms were not considered, as these items tend to be time limited, locality specific, or available through other dissemination networks. Staff and Panelists reviewed 115 products, recording their comments on a product evaluation form designed to guide them towards a decision on whether the product met the following criteria that Panelists had established in order for products to be deemed "exemplary":

- information was accurate and thorough;
- the product was current in terms of philosophy and language (e.g., promoted inclusiveness, self-advocacy, choice);
- the issue addressed by the product was an important one, applicable to a large population;
- the product stood alone;
- the product was transferable to another setting; and,
- the product was innovative in some way or filled a need not being addressed by existing products.

Panelists made one of four decisions about each product: 1) reproduce the product as is and disseminate it immediately, 2) explore with the author reformatting suggestions, with a possibility of later dissemination, 3) field-test the product (via volunteers from the AHEAD membership) in another setting and then determine if it should be disseminated or, 4) not recommend the product for dissemination, reformatting or field-testing. Nineteen products were deemed exemplary by the Advisory Panel. Of these, 13 are being reproduced and disseminated through HEATH, as they are not currently available through any other dissemination network. In addition, HEATH provides contact and cost information for the six additional exemplary products available through other dissemination networks. Two of the

exemplary products that are available through HEATH were reformatted. One of the 19 products was deemed exemplary after receiving favorable comments upon field-testing.

Through HEATH, the *Successful Practices* study disseminated free-of-charge the first 50 copies of each of the 13 exemplary products that are not available through any other dissemination network, with the expectation that users complete and return a product evaluation form. The supply of free-of-charge products has been exhausted, and all products are now available for a cost-recovery fee. [See the Appendix for descriptions of exemplary products and ordering information].

REGIONAL WORKSHOPS

Throughout 1993, the third and final year of the *Successful Practices* study, AHEAD conducted ten one-day regional workshops to disseminate the study's findings. Workshops were held in Long Island (NY), Boston, Portland (OR), Denver, Washington, D.C., Atlanta, San Antonio, San Francisco, Chicago and Cleveland. Each workshop focused on the strategies of successful projects, as well as the exemplary products, identified throughout the study. In the workshops, participants learned to adapt strategies for assisting students with disabilities in higher education, and reviewed and evaluated exemplary products for their own needs. The culmination of the study, these workshops also provided disability support service providers, faculty, administrators, students with disabilities, and others with the opportunity to share and learn from each others' experiences.

CHAPTER 2.
DESCRIPTIONS OF SUCCESSFUL PROJECTS

The wide range of projects selected by the Advisory Panel as successful illustrate the diverse responses of American postsecondary institutions to the issue of educating students with disabilities. Some were located in large institutions, others were in small individualized programs. Community colleges, public as well as independent universities, vocational-technical schools, and community-based agencies are all among those institutions which took on the challenge of improving post high school educational opportunities for students with disabilities.

The settings of these projects are also diverse. Some are urban, others are suburban or rural, and one is a tribal college. States in the north, east, south and west have hosted successful projects. The goals for the projects were strikingly varied, including increasing the participation of students with disabilities in college, preparing students for success in jobs, using computer technology to increase student success, devising a comprehensive array of support services to assist students with disabilities, and teaching remedial math to students with learning disabilities. The target groups ranged from high school drop-outs to displaced homemakers; from high school special education juniors and seniors to blue-collar workers who were recently disabled; and included older students as well as traditional students who had a great range of disabling conditions.

These brief summaries can only hint at the complexities involved in implementing and operating most projects. Readers are urged to review the summaries which follow (listed alphabetically by state), read about the strategies in Chapters three through six, and then call or write to the contact person listed for each project for additional information about how to adapt the strategies that were part of their successful project.

SMILE (1989-1992)
(Successful Moves to Independence, Literacy, and Employment)
Life Development Institute (AZ)

Project SMILE was one of several related projects of the Life Development Institute (LDI), a Phoenix community-based private, non-profit agency serving older adolescents and adults with learning disabilities and related disorders. LDI occupies a low-rise apartment complex in the heart of Phoenix, so that program participants have the opportunity to live and

learn in a unique residential setting. SMILE developed a model to link participants, who had left secondary school unprepared for competitive employment or independent living, to a wide spectrum of cooperating agencies, as well as community training/education programs and services. SMILE participants were referred from either the Arizona Foster Care System's Young Adult Program or the Vocational Rehabilitation system, where they were clients. Training covered the areas of literacy, functional skills, affective skills, adult basic education, tutoring, and vocational exploration. An optional residential component allowed participants to practice independent living skills in a real life setting. Following the core training, participants took vocational courses at a nearby community college or a local skills center. Job placement and six-month monitoring by LDI were final steps of the project. SMILE has been incorporated into the LDI program.

Of the 114 students who participated in Project SMILE during the 3 years of federal funding, nearly all completed the job training and succeeded in living independently. More than half were successfully trained and working, and about 25 percent were in training or in job placements at the close of the project. Interagency collaboration and linkages established during the project are still in place. Dissemination of information about this project to a wide variety of audiences has taken place.

• Contact: Robert Crawford, Life Development Institute, 1720 E. Monte Vista, Phoenix, AZ 85060. (602) 254-0822.

Computer Assisted Design for the Disabled (CADD) (1987-1990)
Valencia Community College (FL)

CADD was an outgrowth of a previously successful computer training program that was in operation at Valencia Community College (VCC). That previous program established a Business Advisory Council (BAC) which had been meeting regularly for about five years when it recommended the creation of the CADD program. CADD staff and a subcommittee of the BAC carefully selected students whom they believed had a good chance of being successful in this rigorous program which trained students to be entry level computer aided drafting and design technicians. Criteria for selection from a pool of candidates with moderate to severe physical disabilities included motivation to succeed, understanding of building mechanics, and enough dexterity to use the computers. Most students were receiving workman's compensation and had previously worked in blue-collar jobs, many in construction, and were referred by

community agencies who paid the tuition. CADD operated on the VCC campus, but was located in its own facility where students are focused more on the program than on activities of the College as a whole; thus they had limited interaction with Valencia Community College students. The training included an intensive eight-month course in Computer Aided Design (CAD) and professional socialization, followed by a two-month internship at a work site in the community.

At the end of the training and internship, staff helped to place students in entry-level CAD jobs and followed them for at least six months. For the majority of students there were high placement rates and successful employment outcomes. Over the three-year period of the grant 52 students completed the program and received a certificate in CAD. Although the certificate was not from Valencia Community College, students could transfer 12 credits earned in the CADD program towards a degree to be earned at Valencia Community College. The BAC played a major role in keeping the curriculum current and in establishing internships and placements for the students. The CADD program continues at Valencia with state and federal funds. It has been replicated in whole or in some parts at several colleges and universities across the country.

• Contact: Deborah Clark, Valencia Community College, Box 3028, Orlando, FL 32802. (407) 299-5000.

Center for Assessment and Training of the Handicapped (CAT) (1988-1991)
Valencia Community College (FL)

CAT took place within the Disability Support Services Office of Valencia Community College and was designed to serve the 700 students with disabilities on Valencia's two campuses. CAT focused on providing comprehensive academic and other support services in order to increase the retention of students with disabilities and improve their subsequent employment outcomes.

With the guidance of an advisory council of people from businesses and community social service agencies CAT recruited students, assisted them in developing realistic career goals, and encouraged them to use the various support services offered as part of the comprehensive program. Staff developed a work evaluation program to assess students' personalities, interests, and aptitudes. They developed job readiness and employability programs with workshops on resume writing, effective interviewing and job search strategies.

They also provided assessment of students' physical fitness and developed fitness training to improve students' endurance. CAT staff worked with the cooperative education office to develop a job placement service for students with disabilities.

Outcomes of this three-year project included increased numbers of students with disabilities entering college, progressing toward graduation, graduating, and entering the job market. Faculty and staff knowledge about disability and teaching skills grew as a result of CAT's outreach to them. Institutional policies and practices to facilitate the admission and accommodations to courses for students with disabilities also improved as a result of CAT's work. Employer attitudes improved as did employment options for students with disabilities. Most aspects of CAT's activities continue.

• Contact: Margaret Edmonds, Valencia Community College, PO Box 3028, Orlando, FL 32802. (407) 299-5000.

Project Access (1988-1991)
Montana State University College of Technology - Great Falls

Project Access took place in a vocational technical center which has been established to prepare its students to enter employment in the health, business, trade, or technology occupations. Great Falls offers 24 occupational training majors, and Project Access was designed to facilitate the successful integration of students with disabilities into these occupational training programs. The staff developed a comprehensive array of support services including adaptive equipment, instructional materials, and learning labs. Peer tutors and community volunteers were involved. Faculty and staff disability awareness training models were developed. Outreach into the community to recruit students with disabilities was also a component of Project Access.

Over the three years of the project, 237 students were served. There was an increase in the number of students with disabilities who progressed toward graduation. Seventy percent completed the program. Faculty awareness increased and instructors learned methods to accommodate students with disabilities. A faculty handbook was developed to enhance faculty competencies in this area and perpetuate the work of the project. Most of the project activities continued after federal funding ended.

• Contact: Patricia Kercher, Montana State University, College of Technology, Great Falls Avenue South, Great Falls, MT 59405. (406) 771-7140.

Project ACCESS (1989-1992)
Salish Kootenai College (MT)

Located on the Flathead Reservation in northwestern Montana, Salish Kootenai College (SKC) is one of 24 tribally controlled colleges in the United States. This community college designed its model of serving students with disabilities to reflect the role of tribal colleges (to establish a learning environment which encourages participation by and builds self confidence in students who have come to view failure as the norm) and on characteristics of Indian culture (where the extended family -- which is the community -- provides care and support to persons in need, who are expected to return that support when they are able). The project relied on extensive coordination among a variety of service agencies already working with the Salish Kootenai community to develop a comprehensive student support program to encourage students with disabilities to enroll, and enable participants to complete their two-year educational program, transfer to a four-year institution, or enter the job market. An additional goal was to design a working model for other tribally controlled institutions.

Over the three years of federal funding the project served 133 students with disabilities, most of whom had orthopedic or multiple disabilities, and many of whom had learning disabilities -- nearly double the number previously served. Progress toward graduation and actual completion of the program was very high. The model policies and procedures developed in this comprehensive program led to institutional changes which remain in effect, impacting admissions, registration, career counseling, testing, and student support services.

• Contact: Mike Hermanson, Barb Landstrom, or Debby Demarias, Salish Kootenai College, Box 117, Pablo, MT 59885. (406) 675-4800.

Educational Center for the Disabled (1985-1988)
University of Nebraska - Lincoln (NE)

The Education Center for the Disabled was located within the Division of Student Affairs at the University of Nebraska - Lincoln. The focus was to design and implement a center for providing technology-based support services for students with a variety of disabilities. When the Center began in 1985 the University served approximately 25 students with disabilities and there were comparatively few computer programs on the market from

which to select. During the three-year life of the project, the staff overcame "turf battles" with the university computing center, increased the number of students with disabilities who used the Center, and developed and provided a variety of student support services in addition to computer assistance.

Students learned and used word processing, including spell checking, and also received study assistance and tutoring in specific skills. During the three-year project period the Center served about 20 new students per year. Many students improved their grades as a result of the technology support. The Center continued after the federal funding ended, but refinements in the computer technology field have shifted the focus of its operation to enhance students' existing computer skills, and expand selection of computer programs to meet the needs of individual students. Currently the Center serves nearly 500 students.

• Contact: Christy Horn, University of Nebraska-Lincoln, 127 Administration, Lincoln, NE 68588-0437. (402) 472-0085.

The Comprehensive Learning Program (1987-1990)
Fordham University (NY)

The Comprehensive Learning Program took place in a university consultation center within the Graduate School of Education at Fordham University. The Center provides a wide range of services to urban New Yorkers, primarily to school-aged children at non-public schools where special education and related services are not available. The focus of the Comprehensive Learning Program was to develop, operate, and test a model program to meet the educational needs of adults whose learning disabilities resulted in a substantial barrier to employment. Prior to the Comprehensive Learning Program, the Center had not provided literacy services to adults.

After program staff identified students who may have learning disabilities, clients were screened and tested prior to acceptance. A key element of the Comprehensive Learning Program was the training of a cadre of volunteer tutors from the Fordham College at 60 program (older students) to provide literacy training to the participants in the project. Tutors provided to individual tutees lessons on oral language and vocabulary, word attack skills, reading comprehension, and written language practice. In addition to the tutoring by the College at 60 tutors, clients received vocational counseling, as well as the benefits of being in small support groups of six to eight participants.

Results included improved academic, vocational, and personal skills among clients; increased awareness about disability issues among faculty and staff; and institutionalization of the program in the Center. In addition, the project developed a screening tool to determine whether or not a student MAY be at risk for having learning disabilities. Students considered to be at risk for having learning disabilities were then referred for the full battery of tests.

• Contact: Rosa Hagin, Fordham University, Lincoln Center, 113 W. 60th Street, New York, NY 10023. (212) 636-6483.

• **Another Chance – The Comprehensive Learning Program for Adults with Learning Disabilities** is a book which describes the project in detail. See *Appendix: Exemplary Products Ordering Form* for description and ordering information.

Project CLASS (1984-1987)
(Career & Learning Assistance)
New York University (NY)

Project CLASS took place within the urban setting of New York University (NYU), an independent selective postsecondary institution. The focus was to increase the number of students with learning disabilities, and help them to succeed by providing a holistic in-depth program to address their academic, self-concept, and career needs. Recruitment of students was accomplished through screening over 2700 students via the Writing Competency Test given to NYU students for placement as well as through training the Writing Center staff to note the markers of a learning disability manifest in writing samples. Students thus screened were referred to the program for further testing. Ultimately approximately 25 students with learning disabilities per year participated in the program.

Academic support services, including an intensive summer program during the first year of the project, instruction in computer/word processing for writing, introduction of compensation by-pass techniques (rather than remediation), counseling and tutoring were provided. Career preparation activities included individual and group sessions to assist students in selecting appropriate careers.

Results included heightened faculty and staff awareness about learning disabilities, increased interactions among members of various NYU departments and programs, and improved grades for the participants. Project CLASS participants had a significantly higher retention/graduation rate than did members of the general student population.

• Contact: Irwin Rosenthal, New York University, Department of Applied Psychology, Counseling Program, 239 Greene Street, Room 400, East Building, New York, NY 10003. (212) 998-5555.

Project CAREER (1987-1990)
New York University (NY)

While Project CAREER was based at the urban New York University location, it delivered services and resources to students with learning disabilities at a suburban two-year college and an urban technical school, as well as to NYU students with learning disabilities. The project focused on transition from college to work or further education for this population. Project CAREER developed a comprehensive model of career exploration, experiential activities, and academic support which was implemented on the three different types of campuses. Project activities included formal career development courses as well as individual and group counseling. Developing and monitoring internships for students at each site and working with employers to make appropriate accommodations was another component. Project staff also provided counseling and facilitated the transfer of some students from the two-year educational institution to a four-year one.

Of the 46 students who participated in the program over 90 percent were either working full time or attending college full time after the project concluded. Project staff administered numerous pre- and post-testing of students in order to measure the impact of the career development course components, student attitude change, and student knowledge gain. On most measures there was significant improvement in all areas. The low drop-out rate and anecdotal evidence from counselors indicated a high degree of student satisfaction with the project.

• Contact: Irwin Rosenthal, New York University, Department of Applied Psychology, Counseling Program, 239 Greene Street, Room 400, East Building, New York, NY 10003. (212) 998-5555.

Teaching Remedial Mathematics to Students with Learning Disabilities (1986-1989)
Queensborough Community College (NY)

The Mathematics Department on the campus of an urban community college was the location of this project. The challenge was to develop another way to teach the one-semester remedial math course, which had an especially high failure rate for students with learning disabilities. Changes instituted included expansion of the course time frame from one semester to two, as well as limiting the class size to 15-18 students, all of whom had learning disabilities. Step-by-step procedures for mastering course material were introduced, computer-aided instruction was included for basic skills training, and each of the 50 class sessions was videotaped for student review. The tapes were made available as part of the project's dissemination of results. During the course of the project faculty from the Mathematics Department who volunteered to teach these new sections were trained in the use of the new core curriculum and ways to teach students with learning disabilities. Peer tutors from the student body were recruited and trained. A variety of computer software packages and publications about teaching this modified program and other aspects of teaching mathematics to students with learning disabilities were produced.

Over the three-year period 82 students enrolled in the program, and 82 percent of those who completed the course passed it. Since the conclusion of the project, many of the modifications were incorporated into the College's curriculum. The remedial math course has traditionally had a high failure rate among students who did not have learning disabilities, and selected sections which use the approach developed by the Teaching Remedial Math Project are now open to all students.

• Contact: Juliana Corn, Mathematics Department, Queensborough Community College, Bayside, NY 11364. (718) 631-6361.

The Learning Disabilities Consortium (1987-1990)
Central Piedmont Community College (NC)

The Consortium consisted of three institutions in two adjacent states: Central Piedmont Community College (NC), University of North Carolina at Charlotte (NC) and York Technical College (SC). Central Piedmont Community College coordinated this effort between participating colleges and the surrounding school districts. The goal of this project was to

improve the transition from high school to further education and employment for students with learning disabilities. The focus was to develop and implement a model of service delivery to identify and help students before they leave high school and assist them to make appropriate and informed choices about their post high school educational options. Once students were matriculated into one of the three campuses, they received a comprehensive array of support services.

This Consortium project involved complex interactions among the colleges, university, and local school districts. More than 240 students were served. Core activities included workshops for high school students, faculty and staff training at both the secondary and postsecondary levels, use of peer mentors, individualized assistance to students, and technical assistance to institutions. In addition, there was a three-day summer residential program, called SELF (Students' Exploration of Learning and their Future) which was designed to help high school juniors and seniors with learning disabilities to plan for their transition from high school by giving them a taste of college.

As a result of the project, students with learning disabilities entered postsecondary education institutions at a higher rate than before, faculty and staff awareness improved, college faculty became more skilled at making classroom adaptations for students with learning disabilities, and changes and improvements have been made in institutional policies and procedures, including recruitment practices, admissions policies, required course substitutions, and grading policies.

• Contact: Jane Rochester, Office of Disability Services, University of North Carolina at Charlotte, Charlotte, NC 28223. (704) 547-4354 V/TT.

Using Job Clubs to Assist in Transition to Work for Postsecondary Students with Disabilities (1985-1986, 1986-1987)
National Center for Research in Vocational Education at Ohio State University (OH)

The National Center for Research in Vocational Education (NCRVE) selected three two-year college sites at which to demonstrate an adaptation of the job club model designed for students with disabilities: Chicago City-Wide College (IL), Columbus Technical Institute [Now Columbus State Community College (OH)], and Community College of Rhode Island (RI). Each site had a substantial population of students with disabilities and an office of disability support services to provide assistance. [A job club is a temporary alliance of job seekers who

meet regularly to provide aid and mutual reinforcement to each other's job search, with the guidance of a job club coordinator who provides training and counseling in the job-seeking skills.] NCRVE identified and adapted existing job club materials for use by students with disabilities, conducted orientation to representatives at the three sites, and at the end of the year evaluated and disseminated the results. Each campus could operate its own version of the job club within the parameters set by NCRVE. Each had to recruit a minimum of 25 students with disabilities, assign a job club coordinator, establish an advisory board, conduct a minimum of 12 job club meetings, and develop a record-keeping system for the members. The students received training in job-seeking skills, career counseling, guidance for developing positive attitudes and motivation, and placement assistance.

Across the three sites more than half of the students who completed all job club activities found employment two months after the close of the project. This is considered high in comparison to the rate for students with disabilities who did not use the Job Clubs. Pre- and post-test data on various measures of knowledge and skills revealed increases in those areas.

Following the first year-long demonstration, NCRVE expanded the project by identifying and working with six sites: Columbus State Community College (OH), Cuesta College (CA), Northern Virginia Community College (VA), Queensborough Community College (NY), Pima Community College (AZ), and William Rainey Harper College (IL). The results of this second project and comprehensive information about both projects are described in **A Study of Job Clubs for Two-Year College Students with Learning Disabilities**. See *Appendix: Exemplary Products Order Form* for description and ordering information.

Contact: **A Study of Job Clubs for Two-Year College Students with Learning Disabilities**.

Projects OVERS and IMPACT (1986-1988 and 1989-1991)
Child Services Demonstration Center (OK)

Project OVERS, and the follow-up Project IMPACT, were both sponsored by the Child Services Demonstration Center and operated by the Central Area Vocational-Technical School (CAVT), which is one of 26 vocational technical centers in Oklahoma established to train secondary students as well as adults for employment. These projects were the first in that location to serve adults with learning disabilities and demonstrate that with appropriate support, these adults can learn and earn. OVERS served over 200 adults with learning

disabilities during the two year project period. Project staff implemented an academic and support service system, adapted materials in many of the vocational programs so that the reading level could be mastered by the students, developed tutorials for all programs leading to state licensing exams, and provided counseling and support to students as needed. Project IMPACT built upon Project OVERS by implementing a prevocational program for over 500 high school students and other adults with disabilities, including some who were originally unable to meet the entrance criteria for the CAVT. Other elements of both OVERS and IMPACT included faculty and staff awareness training, career development services for students, and teacher training.

Both OVERS and IMPACT resulted in increased numbers of students with learning and other disabilities enrolling in and completing the courses at CAVT. Faculty and staff improved their skills in making classroom adaptations for students with learning disabilities. Positive changes were also made in institutional policies concerning recruitment, admissions, course substitutions, and grading policies. Finally, employers became more aware of disability issues.

• Contact: Kathleen McKean, Child Services Demonstration Center, 123 E. Broadway, Cushing, OK 74023. (918) 225-1882.

• **IMPACT on Preservice Training: A Teacher Training Handbook** is a product of this project. See *Appendix: Exemplary Products Ordering Form* for description and ordering information.

Vocational Access Project (1988-1991)
(Provide Students with Disabilities Access to Vocational and Job Placement Programs)
Linn-Benton Community College (OR)

Located in the semi-rural setting of Oregon's Willamette Valley, Linn-Benton's campus was the site of the Vocational Access Project. The project, which was a part of the College's Disabled Student Services program, focused on transition from college vocational training to employment for students with mild and moderate disabilities. Prior to participation in this project students with such mild to moderate disabilities earned low scores on placement exams and thus were ineligible to enter the vocational program offered at Linn-Benton. The Vocational Access Project had the placement score requirements for participants waived so that they could enter the vocational training courses and use the support services. The program was designed to offer a variety of academic and social supports so that these students could participate in the

regular community college milieu. The tutorial lab established by the Vocational Access Project played a major role in providing support services, since that is where students went to receive help in their vocational classes. Tutors were encouraged to note problems students were having in the classes, as well as in other areas, and they were trained to refer them for appropriate help. In addition to tutoring and developing study guides, and adapting reading material, the project also conducted classes in learning strategies, affective skills, travel training, and job seeking skills. Outreach to faculty to raise their awareness of the abilities of these previously ineligible students was also conducted.

Most of the 50 students in the Vocational Access Project who were admitted to the regular vocational program and used the extensive support services, met the same requirements as their non-disabled peers and received a passing grade. More students than expected continued to take courses at the college so that fewer than expected in the first year were actually ready to work. Near the completion of their vocational course work, students were referred to Work Unlimited, a community job placement program which operated from an organization that collaborated on the project, Teaching Research. The staffs of the Vocational Access Project and Work Unlimited jointly worked to place students in jobs. Placement in jobs over the life of the project was high, although some students did not remain employed. The semi-rural area and the difficult economy were cited as reasons for this result. Most features of the on-campus support services for students in vocational training programs remain in place.

• Contact: Paula Grigsby, Linn-Benton Community College, 6500 SW Pacific Blvd., Albany, OR 97321. (503) 967-8836.

Project STRIDE (1988-1990)
(Service for Transition to Independence Through Education)
Altoona Area Vocational Technical School (PA)

Altoona Area Vocational Technical School (AAVT) was the site of Project STRIDE, a cooperative endeavor between the Institute for the Study of Adult Literacy at Pennsylvania State University and AAVT. Linkages were developed with the local office of Vocational Rehabilitation, public school districts, and a local chapter of the Learning Disabilities Association of America. Project STRIDE developed a model of providing services to young people with learning disabilities or other mild-moderate cognitive disabilities who had either recently graduated or dropped out of high school or were displaced homemakers. Referrals

came from various community agencies. Support services included vocational assessment and counseling, tutoring, life skills training, job development and placement for the students, as well as workshops and inservice training for teachers at AAVT. Such services enabled students to enroll in 15 different vocational programs and learn beside non-disabled students of all ages served by AAVT. Sex equity was addressed by recruiting more women into previously male dominated vocational training programs.

Over the two years of the project 39 adults with learning disabilities were trained, of which about half entered the job market. The number of students with learning disabilities attending AAVT increased as did faculty awareness about teaching such students. Manyaspects of the project continue and are integrated into AAVT's program. Linkages with community agencies, student satisfaction, and demonstration that coordination of services for students with learning disabilities can be effective at a vocational technical school were among the accomplishments of this project.

• Contact: Jovita Ross Gordon, Pennsylvania State University, Adult Education Program, 403 South Allen Street, Suite 206, University Park, PA 16801. (814) 863-3781.

Teaching Entry Level Job Skills to Youth with Mild and Moderate Handicaps by Employing Co-workers as Trainers (1988-1991)
Utah State University, (UT)

The Co-workers as Trainers project was based at the Developmental Center for Handicapped Persons at Utah State University, while the actual worker and employee training took place at a variety of county-wide employment sites. The focus of the Co-worker as Trainers project was to provide entry-level training in an integrated business setting to youths with mild or moderate disabilities -- primarily learning and behavioral disabilities -- who had recently left high school special education or alternative programs, and were unable to secure employment independently. The model was based on previous co-worker research conducted at the University.

The Co-worker as Trainer project used teams consisting of three or more of the following people: transition specialist, teacher, rehabilitation counselor, potential employee, parent, co-worker, and business supervisor. Individual plans were developed for each student with an individualized placement approach to match students with employers. Most training took place on the job site. Co-workers who were selected were willing, respected by other staff, and

recommended by supervisors. Co-workers were paid $20 to attend an initial training session, and then paid $2 an hour in addition to their salary for providing ongoing training and monitoring of the student. The transition specialist monitored the co-worker.

Results included training 31 young adults with mild or moderate disabilities; developing several training manuals; and developing 42 jobs in over 35 businesses. More than half of the students retained their jobs for six to 12 months; some for longer than one year. Faculty, staff, and employer awareness about working with people with disabilities was raised.

• Contact: Rita Curl, Department of Psychology, Minot State University, 500 University Avenue West, Minot, ND 58707. (701) 857-3585.

• **Put That Person to Work! - A Manual for Implementors Using the Co-Worker Transition Model, Put That Person to Work! - A Co-Worker Training Manual for the Co-Worker Transition Model** are products of this project. See *Appendix: Exemplary Products Ordering Form* for description and ordering information.

Project ASSIST (1985-1987)
Adult Services Supporting Instructional Survival Tactics
University of Wisconsin - Whitewater (WI)

Project ASSIST operated from the Special Education Department of the University, which is located in a rural community in southwestern Wisconsin. The project was developed to provide direct services to students with learning disabilities who were not being served elsewhere on-campus. ASSIST relied heavily on graduate students and teacher trainees to staff the project. In addition, a five member Student Advisory Board was convened, and a 13 member Advisory Board was appointed, more than half of whom were key campus administrators. The composition of the Board facilitated the accomplishment of the institutional and departmental changes recommended by the project.

Activities directed at students included screening and assessment of students at the University, a summer high school to college transition program, support services during the academic year, and career exploration activities. Academic support services included tutoring, small group study sessions, mini-courses, student support groups, and assistance with registration. Thus coordinated services throughout the University for the targeted population were developed. Through staff orientation, training, and supervision, and staff-initiated

research, numerous publications and a videotape were created. Most aspects of the program were institutionalized on campus. A total of 128 students with learning disabilities participated in the project, most of whom earned higher grades than those not in the program. Products and information about the project have been widely disseminated.

• Contact: Deb Hall, University of Wisconsin - Whitewater, 2021 Roseman, Whitewater, WI 53190. (414) 472-5239.

CHAPTER 3.
INSTITUTIONAL AND COMMUNITY INVOLVEMENT: Strategies for Educating Students with Disabilities

Postsecondary education is a broad term that describes a variety of post-high school settings, including two and four year public and private institutions, vocational technical schools, career schools, residential or day transitional programs, and other training and enrichment programs. For all students, including those with disabilities, entrance into these postsecondary settings is an exciting experience, with its own set of unique academic, vocational, and personal challenges. In their academic endeavors, students may find that the learning environment differs from that with which they were familiar in high school. Class sizes may be smaller or larger, course content may be covered at a faster pace, and there may be less monitoring by instructors of students' work. At the vocational level, students may experience pressures associated with the complex process of choosing a career path. This process may include assessment and self-examination activities coupled with experimentation in different academic or vocational fields. In the personal sphere, students may undergo a major lifestyle change. Residential students living away from home for the first time are faced with practical concerns such as money and time management or cooking and doing laundry, as well as more general independence issues. For commuting students, concerns may include the logistics of transportation, or the search for the right balance between work, family life, and school obligations.

As students with disabilities adapt to their new environments, they gradually become a part of the larger campus community. A wide range of individuals at the institution itself and in the surrounding community have an impact, indirect as well as direct, on the education of postsecondary students with disabilities. It is critical that students with disabilities perceive their new community as a welcoming place, committed to using its collective institutional resources to provide them with the support they need in order to make a smooth transition to postsecondary education and to continue to have a successful postsecondary experience. The types of individuals at the institution who have a role in creating an accepting environment range from high level administrators who may set a tone of acceptance by conveying support either through words or action, to individual faculty members who assist students on a daily basis, to staff at offices of disability support services, offices of financial aid, offices of admissions and registration, career centers, counseling centers, and libraries. At the community level, volunteer or non-profit groups may support the education of postsecondary students with

disabilities by providing services such as tutoring or work placement. Local businesses and industries can enhance the education of postsecondary students with disabilities by becoming aware that such individuals constitute a valuable source of potential employees, and then incorporating this awareness into their hiring practices.

The term *institutional and community involvement* is used here to describe strategies used by staff of successful projects to enlist the support of different individuals and entities on the campus itself and in the community at large. The enlistment of such support at the institution and in its surrounding community was identified by the Advisory Panel as an element that was critical to the success of the following nine projects:

1. Center for Assessment and Training of the Handicapped (CAT), Valencia Community College (FL).
2. Project Access, Great Falls Vocational Technical School (MT).
3. Project Access, Salish Kootenai College (MT). Hereafter referred to as Salish Kootenai ACCESS.
4. Educational Center for Disabled Students, University of Nebraska - Lincoln.
5. Teaching Remedial Mathematics to Students with Learning Disabilities, Queensborough Community College (NY). Hereafter referred to as Remedial Mathematics.
6. Learning Disabilities (LD) Consortium, Central Piedmont Community College (NC).
7. Projects OVERS/IMPACT, Child Services Demonstration Center (OK).
8. Vocational Access, Linn-Benton Community College (OR).
9. Project ASSIST, University of Wisconsin - Whitewater.

Based on project directors' descriptions of their projects' use of strategies related to institutional and community involvement, HEATH staff divided these strategies into four subcategories: **Collaborative Relationships with On- and Off-Campus Entities**, **Faculty Support**, **Administrative Support**, and **Institutionalization**. The first section, **Collaborative Relationships with On- and Off-Campus Entities**, describes the basic array of services provided by projects and the types of collaborative relationships established with on- and off-campus entities in order to develop and deliver these services. The second section, **Faculty Support**, describes the strategies used by projects to secure the support of faculty and staff, including inservice workshops, individual consultations with faculty, and dissemination of

literature. The third section, **Administrative Support**, describes ways in which funded projects enlisted the support of high level administrators. **Institutionalization**, the final section, describes methods used to incorporate aspects of funded projects into the institution's permanent activities. Figure 1 outlines the strategies discussed in this chapter.

FIGURE 1:

INSTITUTIONAL AND COMMUNITY INVOLVEMENT:
Strategies for Educating Students with Disabilities

Collaborative Relationships with On and Off-Campus Entities
- Array of Services
- Outreach Activities
  - On-Campus
  - In the Community
- The Development of Collaborative Relationships
  - On-Campus
  - Barriers to Developing Collaborative Relationships on Campus
  - In the Community

Faculty Support
- Inservice Workshops
- Consultation
  - Methods Used
  - Barriers Encountered and Suggestions to Others
- Dissemination of Literature

Administrative Support
- Support From a High-Level Administrator

Institutionalization
- Aspects of Projects that Continue
- Factors that Enabled Projects to Continue

COLLABORATIVE RELATIONSHIPS WITH ON- AND OFF-CAMPUS ENTITIES

An overarching difference between high school and college for students with disabilities is that in high school it is the school's responsibility to identify such students and provide them with the testing and services to which they are entitled, whereas at the college level it is the student's responsibility to request services and provide documentation of the disability. Self-advocacy, or the ability to take control over one's growth by identifying and then expressing one's needs to appropriate individuals, is therefore an important skill for the postsecondary student with a disability. A primary function, whether explicitly stated or not, of many of the projects discussed in **Educating Students with Disabilities on Campus**, was to assist students to become better self-advocates.

In most cases, staff of the projects acted as ombudsmen, harnessing support for students with disabilities from the many different players at the institution and in the community, and then assisting the students to tap into this support. Because students with disabilities, as do all students, have multiple needs that cut across academic, vocational, and personal spheres, the services that help them succeed are often comprehensive in nature. Directors of projects that used institutional and community involvement strategies identified the commitment of the postsecondary institution's faculty and staff as well as that of community agencies as a key factor that enabled them to provide the necessary array of services. The main focus of this sub-section, *Collaborative Relationships with On- and Off-Campus Entities*, is on the outreach activities conducted with on- and off-campus entities that resulted in collaborative relationships, and the continuing development of these collaborative relationships. First, the basic array of services provided by projects will be discussed in order to provide a context for a full understanding of the relevance of the different types of collaborative relationships. The nature of the services provided is discussed in-depth in other chapters.

Array of Services

A main activity of most projects that used strategies related to institutional and community involvement was to provide students with the academic accommodations they required in order to participate on an equal basis with their non-disabled peers. The broad range of academic accommodations provided by projects identified by the *Successful Practices* study as successful is described in depth in Chapter 4, **Academic Support Services.** Academic support services include services that many institutions must provide in order to comply with

Section 504 of the Rehabilitation Act of 1973 (which is reinforced by the Americans with Disabilities Act of 1990). These services include, but are not limited to: notetakers, scribes, taped texts, readers, test accommodations, assistance with registration, taped lectures, and interpreters. Other academic support services that extend "above and beyond" the obligation of institutions to comply with Section 504 and the ADA may include: tutorial services, study skills instruction (either through mini-course or through small group study sessions); and, training in the use of technology and equipment.

Two projects (Project ASSIST and LD Consortium) discussed in this chapter featured a summer transition to college component. These summer transition programs, targeted exclusively to students with learning disabilities, were designed to help students overcome some of the obstacles they may face during their post-high school, pre-college period by providing practice in using college level learning skills and facilitating social interaction with a limited group of peers prior to the beginning of the actual college year. Such programs are described in Chapter 5, **Summer Transition to College**.

Two projects (Vocational Access and CAT) that used institutional and community involvement strategies also used strategies related to career development. Career development strategies include linkages (intra- and inter-agency collaboration, outreach to business and industry, and advisory boards), career services (career assessment and exploration and career/technical training on campus), work experience (internships, cooperative education placements, using co-workers as trainers, and job placement with follow-up) and student support services (tutors, counseling, skills classes, job clubs, and technology.) The use of these strategies by nine successful projects, of which Vocational Access and CAT are two, is discussed in Chapter 6, *Career Development*.

Outreach Activities

Most funded projects had small staffs that included only one or two full time professionals and several part time workers. In order to successfully provide a broad array of services, project staff tapped into the resources of different offices and departments at their host institutions as well as those of local community groups. In working collaboratively with many different individuals, project directors were able to garner support for their projects and for students with disabilities in general.

On-Campus

At the campus level, many projects worked closely with offices of admissions and registration, offices of financial aid, and counseling centers. Projects that were not housed within their campus' office of disability support services worked with this office. Projects also collaborated with advising centers, career centers, tutoring centers, computer labs, library and audiovisual centers, fitness centers, offices of physical plant and maintenance, offices of cooperative education, and offices of student support services. All projects worked with faculty, staff and administrators; activities in this area will be discussed in the **Faculty Support** and **Administrative Support** sub-sections.

Two projects (Project ASSIST and Educational Center for Disabled Students) collaborated with designated academic departments at their host institutions. Graduate students in Special Education at University of Wisconsin - Whitewater, the site of Project ASSIST, served as tutors for the project, and used this experience to fulfill their fieldwork requirement. Project ASSIST also worked with the Developmental Studies Department at the University; staff from this Department conducted a class that was a component of the summer transition to college program. Educational Center for Disabled Students, located at University of Nebraska - Lincoln, worked with the University's Computer Science Department and Human Development and Family Program. Students who majored in Computer Science were required to complete a Senior project, and some of these students met this requirement by designing computer programs for students with disabilities. Student interns at Educational Center for Disabled Students were graduate students in the Human Development and Family Program.

Through reaching out to academic departments and other offices at host institutions, project staff at the nine projects raised awareness levels of staff about the existence of the population of students with disabilities. According to the project director of CAT, an outgrowth of collaborative relationships established by the project with offices that were already a part of the campus was that inclusion of students with disabilities became a regular facet of the activities of these offices. The Fitness Center already existed on campus, and CAT project staff worked closely with its staff to develop a program for students with disabilities in which equipment was wheelchair accessible and trained attendants were present. These components are now a regular part of the Fitness Center. The Cooperative Education Office also was already on campus; CAT staff worked with this office to place students with disabilities in co-op or internship positions that would ideally develop into part or full time jobs.

In the Community

At the community level, projects reached out to a variety of public, private, and service organizations. Three projects (Vocational Access, LD Consortium, and Project ASSIST) collaborated with the local public schools by providing information to staff on transition in general and their projects in particular. Vocational Access relied on the local high schools as a primary referral source for the project. Outreach to the local school system was a main component of LD Consortium, a transition project that served high school students and staff as well as college students at three postsecondary institutions. LD Consortium project staff conducted many professional development activities for high school staff members, including the importance of student workshops on topics such as career exploration, self advocacy, study skills and transition to college. Project staff also met with high school resource teachers in small groups to discuss transition issues. High school students attended workshops about the college search process that were sponsored by LD Consortium and held on college campuses. LD Consortium also recruited high school students into its summer transition to college program.

Four projects (Salish Kootenai ACCESS, Educational Center for Disabled Students, Vocational Access, and Project OVERS/IMPACT) worked with their local Offices of Vocational Rehabilitation. Salish Kootenai, a tribal college, worked with staff at both the tribal and state Vocational Rehabilitation Offices. Similarly, Salish Kootenai ACCESS worked with both the state and tribal personnel offices in its efforts to assist project participants to find employment. The county social service agency was the other type of public agency with which projects collaborated; two projects (Vocational Access and Project OVERS/IMPACT) worked with such agencies.

Three projects (Educational Center for Disabled Students, Project Access, and Vocational Access) collaborated with community-based organizations. Educational Center for Disabled Students recruited readers from the United Way, the Retired University Employees organization and probation officers who were seeking community service activities for their clients. Project Access recruited volunteers to tutor project participants and tape record books from a local medical auxiliary group. Vocational Access collaborated with Work Unlimited, a community-based job placement program that provided job-placement and follow-up for project participants.

Three projects (CAT, Project OVERS/IMPACT, and Educational Center for Disabled Students) collaborated with local organizations and businesses by placing representatives of these groups on their advisory boards. The project director of CAT felt the advisory board was

the strongest part of her project. The first activity of the project was to establish the advisory board. In doing so, staff looked for a group of hard working individuals who would take their responsibilities to guide the project seriously. Through serving on the advisory board, representatives of businesses became more aware of disability issues. Project OVERS/IMPACT included a state Senator as well as business representatives on its advisory board. The project director of Educational Center for Disabled Students invited representatives of community organizations to serve on the project's advisory board in order to promote the project's mission, which was to facilitate the sharing of information and resources. [For additional information on projects' uses of advisory boards, see Chapter 6, *Career Development*].

Community outreach was a major component of Educational Center for Disabled Students, a project that provided services to students with learning and mobility disabilities using computer technology and academic skills training. The Center shared information about technological equipment and/or recruited volunteers from the following local and state groups: Lincoln Public Schools, United Way, Recording for the Blind, Christian Braille Record, Nebraska Library for the Blind, Nebraska Commission for the Hearing Impaired, and United Cerebral Palsy. The Center also established collaborative relationships with a rehabilitation center, children's hospital, and augmentative center. Staff at these entities wished to learn about new technologies and each entity had its own specialty areas; however, none had the resources to own all of the desired equipment. Educational Center for Disabled Students spearheaded an effort to share equipment among these entities.

The Development of Collaborative Relationships

Reaching out to and collaborating with on- and off-campus entities were important activities of projects that succeeded in involving the institution and surrounding community. The process of fostering collaborative relationships among individuals with different missions or perspectives is not always an easy one, due to potential problems of miscommunication. All work environments have distinct cultures, and resulting accepted modes of operation, and employees are therefore sometimes wary when asked to collaborate with others outside of this environment. Such collaboration may be perceived as a disruption to the routine. Despite the host of problems that may arise in establishing collaborative relationships, the experiences of project directors in establishing such relationships with on- and off-campus individuals and entities were overall quite positive.

On-campus

At the campus level, directors of three projects (Project Access, Project ASSIST, and Salish Kootenai ACCESS) attributed the ease with which they were able to involve faculty and staff to the small size of the host institution. The director of Project Access felt a primary reason it was "relatively easy" to enlist support from all staff at the institution was that the institution is a single campus building. Similarly, the director of Project ASSIST felt the process of establishing collaborative relationships was "fairly smooth" because University of Wisconsin - Whitewater is a small campus and most staff members were very willing to work with project staff. She also mentioned that the University of Wisconsin - Whitewater has a historical basis for receptivity, as it was designated in the late 1960s or early 1970s to be accessible for students with physical disabilities.

According to the project director of Salish Kootenai ACCESS, there were no difficulties in generating support for the project because the number of faculty members at the institution was very small and, as part of working at a tribal college, they understood and appreciated the "impact of disadvantage on education." Faculty had not previously had much experience with disability as it relates to higher education, but expressed a willingness to learn about it. A committee on disability issues was created, comprised of faculty members, administrators, and representatives from the physical plant office. The project director felt that this committee succeeded in raising the level of awareness about disability in the community.

Project directors of two projects (Vocational Access and Project OVERS/IMPACT) enlisted support at the institution by approaching selected staff members before and during the period in which the grant proposal was written. Project staff of Vocational Access met with different members of the faculty to describe the proposed project and asked for their cooperation in serving students with low or borderline intellectual abilities, the new population being targeted by the project. The director of Project OVERS/IMPACT also sat down with different faculty and staff members at the institution and obtained support and input from them before the grant proposal was written. When consensus building activities took place before the project began, the success of the collaborations was enhanced.

Barriers to Developing Collaborative Relationships on Campus

When asked to discuss barriers to involving staff at institutions, many project directors mentioned attitudinal issues. Some project directors reported that faculty and staff often

lacked knowledge about disabilities and the ways in which disabilities impact learning. Consequently, faculty and staff often had negative connotations about the abilities of students with disabilities to succeed at the postsecondary level. The director of Project Access said she and her staff underestimated the amount of time it took to effect attitudinal change, and advises others to persist in their efforts. The director of Project OVERS/IMPACT said it is essential to demonstrate to faculty and administrators that individuals with invisible mild and moderate disabilities truly do exist. She found that an effective way to do this was to provide resistant faculty and administrators with experience in working with people with disabilities who have difficulty in one or several areas, yet are likely to succeed.

Project directors of two projects (Vocational Access and Project ACCESS) said faculty members initially expressed concern that the quality of instruction would be compromised if the institution were to accept students with cognitive deficits. The project director of Vocational Access said that faculty became supportive after project staff assured them that this would not be the case. Project staff emphasized that there is nothing "new, unusual, or difficult" in working with this particular group and advised faculty to determine these students' individual strengths and weaknesses, as they did with all other students. The project director also mentioned that the idea of taking responsibility is important in vocational classes -- faculty like to feel that the students are "theirs." Through talking to faculty and providing them with information, project staff enhanced instructors' senses of responsibility for the success of "their" students.

The project director of Remedial Mathematics felt it is important to "preach to the converted," rather than focus efforts on those who resist new initiatives. She reported that throughout the course of the three-year project, six of the 35 faculty members in the Mathematics Department participated in the project, which involved teaching a class composed entirely of students with learning disabilities. None of the other faculty members wanted to get involved, and the project director did not want to assign anyone the class to teach involuntarily. Faculty members who did participate were paid slightly more for teaching the class and meeting with the LD Specialist on a weekly basis.

Salish Kootenai ACCESS experienced difficulties with the Physical Plant Maintenance Office. Requests by project staff for certain modifications, such as the widening of walkways to accommodate people who use wheelchairs and installation of electric doors, were initially resisted by staff of this office. Project staff responded to the problem by sending the resistant staff member to an off-site ADA training session. The project director reported that the staff member is now an advocate for people with disabilities. The project director believes the fact

that the training was conducted by an off-campus individual was crucial to its success. Often off-campus sources provide the same information and make the same points as do on-site individuals, yet some staff are more likely to listen to the off-campus authority.

Several project directors emphasized the importance of clear communication of the project's mission in winning over faculty and staff. The project director of Vocational Access was able to sell the project to the college by emphasizing that it presented a solution to problems the school experienced with students who failed. She commented that at-risk students come to the school because of its open door policy, and many of these students fail. The project director found that faculty were eager to learn from Vocational Access staff about different types of assistance they could provide to increase retention rates of all students in their classes, not only those with disabilities.

The director of Project Access felt it was important to permeate the campus community with information about the project. She said it initially took some time, perhaps more than was originally anticipated, to disseminate information about the project. The project was mentioned at faculty meetings, department chair meetings, faculty and staff meetings, and inservice workshops. Linkages were also established through daily contact as the project progressed.

In the Community

Directors of three projects (Educational Center for Disabled Students, Project OVERS/IMPACT, and Vocational Access) said that collaboration with community organizations was easiest when previous contact had been initiated with the groups. This was most true in relation to Offices of Vocational Rehabilitation. In some projects, either project participants themselves or project staff already had connections to Vocational Rehabilitation.

Directors of two projects (Project OVERS/IMPACT and Educational Center for Disabled Students) said that in establishing ties with Offices of Vocational Rehabilitation and other community groups, it is important to emphasize the reciprocity of the relationship. For example, the project director of Educational Center for Disabled Students said the Office of Vocational Rehabilitation already supported a number of students at the University, and the Center's role was to make these students successful. Project participants demonstrated success through taking full courseloads and not repeating classes, and as a result of such successes, the project had a "considerable amount of support" from the director of Vocational Rehabilitation.

Although experiences of projects in working with community groups were generally positive, project directors did cite specific instances in which issues arose that needed to be

addressed and resolved. In the area of transition, a logistical barrier that affected Project OVERS/IMPACT participants was the discrepancy between the state definition of learning disabilities and the definition used at the elementary and secondary level. The result of this discrepancy was that students who had been diagnosed in high school as having learning disabilities often had to be re-tested in order to be eligible for Vocational Rehabilitation services. Project staff worked with the Office of Vocational Rehabilitation in order to get the definitions more aligned so that students could receive services quickly and easily.

FACULTY SUPPORT

Although the proportion of students with disabilities enrolled at postsecondary institutions has grown steadily over the past twenty years and there are indications that the numbers will continue to rise, the phenomenon of postsecondary students with disabilities as a significant minority group is still relatively new. Consequently, some faculty and staff members lack not only a familiarity with the types of accommodative services that will enable students with disabilities to participate on an equal basis, but sometimes a rudimentary knowledge of the nature of different disabilities as well. Many of these individuals are willing to accommodate students with disabilities, but in order to do so they may require some combination of information, training, and support. Projects that involved the institution and surrounding community raised the awareness levels of faculty and staff on disability issues through working with them one-on-one and in workshop settings. Project staff also educated faculty and staff by providing them with written information on the topic of postsecondary students with disabilities.

Inservice Workshops

Inservice workshops are one forum for educating faculty and staff about postsecondary students with disabilities. Inservice workshops can present information on a range of different issues, such as the nature of specific disabilities and the history of the treatment of individuals with disabilities, or sophisticated questions surrounding the topic of what is and is not required under the law in a postsecondary setting. Workshops can take place once, or they can be part of an ongoing series. Five projects (Project Access, Project OVERS/IMPACT, LD Consortium, Salish Kootenai ACCESS, and Remedial Mathematics) that used strategies related to community and institutional involvement featured inservice workshops.

Project Access offered workshops that assisted instructors to develop appropriate teaching methodologies for use with adults, such as the modification of course objectives and syllabi. The primary target population of Project Access was students with learning disabilities. The workshops therefore included information on how to identify a learning disability and problems that may arise due to a learning disability. Workshops also provided information on the disabilities of other students served by the project - deafness, blindness, seizures, and emotional and psychological disabilities. Approximately 60 people attended the workshops. Students were invited to attend on a voluntary basis.

During Project Access' first year, the workshops were held every month. After the first year, they were held every quarter, during personnel/instruction days (days when students were not on campus, but personnel were). Participants typically attended a workshop that met twice, for one hour each time, and did not receive credit for attendance. They did have the option, though, of enrolling in a more intensive for-credit class on instructional design. Individuals from the state of Montana (in which Project Access was located) who had expertise in topical areas conducted the workshops. The project director found that faculty were more accepting of experts from outside of the building than they were of those from within.

An inservice workshop was provided by Project OVERS/IMPACT to the entire faculty at Central Area Vocational Technical School, the site of the project. The workshop was conducted by the project director and project staff. It lasted two hours and provided basic information on the project itself, how it feels to have a disability, and some common accommodations used to modify instruction. After the initial inservice, follow-up briefings occasionally took place at Central Tech's weekly staff meetings. Approximately three times per year, project staff explained some facet of Project OVERS/IMPACT at these meetings and addressed any problems that had surfaced.

LD Consortium conducted a number of different workshop series. A joint workshop held during the summer over a five-day period for staff at York Technical College and Central Piedmont Community College was attended by approximately 25 faculty members. Information was provided on what learning disabilities are, characteristics of students who have them, and ways to spot them. Information was also provided on instructional techniques in different subject areas, including math, reading, English language, study skills, and writing. Four to five follow-up workshops were held throughout the year at each institution. Two workshops were conducted at the University of North Carolina at Charlotte, the third institution participating in the LD Consortium. Approximately ten attendees attended each workshop.

University faculty and outside consultants conducted the workshops at Central Piedmont Community College, Central Piedmont staff conducted some of the workshops at York Technical College, and project staff conducted the workshops at University of North Carolina at Charlotte. The project director noted that the workshops at the university were not as well attended as those at the two-year colleges, and she speculated that instructors at these institutions have different perceptions of their roles in the classroom. Project staff also provided faculty members at all three institutions with information at department meetings throughout the year, and were available for one-on-one inservice training.

Salish Kootenai ACCESS conducted workshops that covered all disabilities, with an emphasis on learning disabilities. Training was provided on specific techniques for working with students with learning disabilities, and information was provided on legal issues as well as resources of the project. Experiential learning opportunities, or disability simulations, were set up that allowed participants to experience various aspects of what it means to have certain disabilities. Workshops were held during the regular orientation week, and also at several different times throughout the year. Each workshop built on the previous one, featuring a review of previously covered material as well as an introduction of new material. Workshops lasted between one and four hours, and were led by project staff and students. Attendance ranged from 25-50.

In Remedial Mathematics, the project director, LD Specialist and two faculty members who were teaching the Remedial Mathematics classes attended a workshop that met at the beginning of the term and lasted three to four hours. Faculty members were required to attend the workshop as part of the agreement to teach the classes. The workshop's purpose was to raise awareness about learning disabilities and teach strategies to plan and facilitate classroom procedures. A definition of learning disabilities, characteristics of students with learning disabilities, and behavior modification techniques were discussed.

Throughout the year, each faculty member participating in Remedial Mathematics met with the LD Specialist once a week for one hour to discuss specific problems. The project director cited the fact that faculty members approached the LD Specialist outside of the one hour meeting as evidence of the usefulness of these meetings. The project director felt that if a project is housed within an academic department, as was Remedial Mathematics, it is essential to have the resources of an outside specialist who is attuned to students' social and emotional as well as academic issues. The LD Specialist was an important contact who had "a foot in both worlds" and thus acted as a bridge.

Project ASSIST featured workshops in the early phase of the project. The project director initially went to different departments and conducted the workshops, at which participation was voluntary. She found this approach was "not making a difference" and decided instead to work with faculty on an individual basis. She speculated that attendance would be higher if the workshops were mandatory; however, if the workshops were mandatory, people who came against their wish might not be cooperative.

Attendance at workshops was mandatory in three of the projects (Remedial Mathematics, Project Access, and Project OVERS/IMPACT). The director of Project Access said attendance at workshops was mandatory for all staff due to a belief that all employees at the institution needed to become sensitized to disability issues.

Although attendance at the workshops offered by Salish Kootenai ACCESS was not mandatory, the project director said there was an expectation that faculty attend, and most did, due to their "understanding of disadvantage." The project director of LD Consortium acknowledged that faculty members who are not interested in disability, but who do need the information, do not always attend workshops that are voluntary. She attempted to generate interest among faculty members by sending targeted information to specific departments. For example, she provided members of the English Department with information on ways to teach writing to students with learning disabilities.

Workshops offered by four of the projects (Project Access, Project OVERS/IMPACT, LD Consortium, and Salish Kootenai ACCESS) were evaluated, and all project directors reported that they received high scores. Several project directors said one indication of the success of the workshops was the fact that faculty members who attended them often contacted project staff afterwards for additional information.

Although there was no formal evaluation of the workshops offered by Remedial Mathematics, a questionnaire designed to assess faculty members' knowledge of and attitude toward disability was administered before and after the workshop. The project director reported that the analysis of these questionnaires indicated increased factual knowledge about learning disabilities. The faculty members who participated in the project were already supportive of students with disabilities, so there was no significant change in attitudes.

The project directors of Project OVERS/IMPACT and Salish Kootenai ACCESS had general suggestions regarding the topic of inservice workshops. The director of Project OVERS/IMPACT said it is important to make inservice interesting, relevant, and practical. She also felt that a participatory format is more effective than a lecture-based one. The project

director of Salish Kootenai ACCESS said workshops must be conducted on an on-going basis, so that information can be continuously reviewed and updated.

Consultation

Another way to educate faculty about issues involving students with disabilities and to encourage them to make programmatic changes is through an "individual consultation." This strategy involves correspondence through writing or telephone, or a meeting between a student and/or advocate for the student and faculty member. Confidentiality is extremely important in these situations, and correspondence should take place only when project staff have obtained permission from the student to contact faculty on his or her behalf. Through this communication, faculty are notified that a student with a disability is in their class and informed about ways to accommodate the student, based on the student's strengths and weaknesses. Eight projects used the consultation model.

Methods Used

In any given semester or term, postsecondary students with disabilities will interact with many different faculty members. In two of the projects (Project OVERS/IMPACT and CAT), project staff consulted with all faculty members with whom project participants had contact. Project directors of the remaining six projects (Project Access, Project ASSIST, LD Consortium, Salish Kootenai ACCESS, Vocational Access, and Educational Center for Disabled Students) said instructors were approached on a case-by-case, as-needed basis. Often, project staff would end up consulting all faculty members on behalf of all students. However, instructors were not consulted in some instances in which students did not wish to disclose their disability or did not need an accommodation.

Projects used different methods of establishing initial contact with instructors. In two projects (Project ASSIST and Vocational Access), personal contact with the faculty member was made by the student or project staff, after which a follow-up letter was sent to the instructor by project staff. In the beginning of Project ASSIST's grant period, project staff contacted individual faculty members on behalf of project participants; as the grant evolved, staff urged students to contact faculty themselves. Students who decided to tell their instructors about their disabilities ideally introduced themselves to the instructors within the first week of classes. After this meeting took place, project staff or tutors sent the instructor a

packet of literature including an informational brochure on Project ASSIST, information on appropriate classroom accommodations (including testing accommodations), and information on definitions and characteristics of learning disabilities. When problems arose, project staff or tutors spoke to faculty members, mostly via telephone. In Vocational Access, project staff and the student, along with any other individuals interested in the student's education, such as a Vocational Rehabilitation counselor or a family member, approached the instructor prior to registration to discuss the student's disability and appropriate accommodations. Following the introduction, project staff sent the faculty member a letter outlining the student's needs.

In two projects (Educational Center for Disabled Students and CAT), project staff initiated contact with instructors by sending letters to them. Educational Center for Disabled Students project staff sent instructors standard letters per specific accommodations, such as test accommodations or interpreters. These letters described the accommodation and explained the student's need for it. Project staff only met with instructors in situations where the accommodation was relatively complex and warranted additional explanation. In CAT, counselors for students with disabilities and project staff contacted instructors through writing before classes began. Follow-up meetings with instructors took place when deemed necessary by the counselor. Staff encouraged, but did not require, students to talk to instructors.

In LD Consortium, contact with faculty members was initiated by project staff via telephone. Throughout each semester, project staff maintained contact with instructors by continuing to discuss issues of accommodating students with learning disabilities either over the phone or at meetings. The project director reported that telephone calling occurred both ways.

Methods used by the remaining three projects (Project Access, Project OVERS/IMPACT, and Salish Kootenai ACCESS) to approach instructors were more informal. In Project Access, the need for accommodative services was either student-recognized or instructor-recognized. When the need for services was identified, project staff began to work with the instructor and student. In Project IMPACT/OVERS, project staff knew when instructors had breaks, and spoke to them about students' needs during these times. Staff talked to each student's instructors at least once a quarter, and often more frequently. Students sometimes participated in these sessions. At Salish Kootenai, project staff approached instructors when they needed to discuss situations involving specific students. The project director also added that as a result of either attending the inservice workshop or reading publications developed by the project, faculty members sometimes suspected that students in their classes might have a learning disability, and asked project staff for assistance.

Barriers Encountered and Suggestions to Others

While most project directors said the idea of the consultation was generally received very well by faculty, many also described instances in which problems arose. Specific accommodations mentioned by project directors that caused discomfort among some faculty members included the tape recording of lectures (Project ASSIST and Project Access) testing accommodations (Project ASSIST) and interpreters (Project Access). The project director of CAT said that some instructors panicked when they learned that they had students who were blind/visually impaired or deaf/hard of hearing in their classes. The project director of LD Consortium emphasized the importance of developing creative ways to provide information about learning disabilities and classroom accommodations to those faculty members who are not as open to learning about these topics. She found that it was effective to provide such information at Departmental meetings.

Two project directors (Educational Center for the Disabled and Project Access) said instructors *initially* feared that in fulfilling their responsibility to accommodate students with disabilities, they would lose a degree of autonomy. The project director of Educational Center for Disabled Students said some faculty were initially "irate" because they felt that they were being told "how to run their business." But in the end, most would call project staff and ask how they could "make life easier for their students." The director of Project Access said that although in the beginning some instructors feared they would lose their independence, over the course of the three-year project, the support provided became "routine and much appreciated" by them. The project director of Vocational Access echoed the sentiment that faculty wanted to know how they could help students and appreciated the personal contact afforded by the consultations.

Project directors developed different strategies to deal with resistant faculty members. The director of Project ASSIST said that when situations with resistant individuals arose, project staff encouraged students to self-advocate as much as possible. The project director of CAT said it was the job of the project to help "nervous" instructors overcome their fears through assisting them to develop different ways to present material. The director of Project OVERS/IMPACT said that as a last resort project staff would ask the administration for assistance in addressing problems. However, she felt the best way to get instructors to cooperate was to let them hear of the project's importance through other instructors.

Directors of projects that featured both inservice workshops and individual consultations expressed different ideas on the effectiveness of these two approaches to

providing information to faculty. The director of Project ASSIST felt that at University of Wisconsin - Whitewater, the individual consultation model was more effective than the larger group setting. However, she speculated that at institutions that lacked a history of receptivity, a large group format might work well. The director of Project Access said she wished project staff had arrived sooner at the model of raising faculty awareness through inservice, while at the same time teaching students how to be better self-advocates. When students possessed self-advocacy skills, they were more comfortable approaching instructors. The project director of Vocational Access felt inservice is truly necessary as a way to disseminate as much information about the nature of disability as is possible. Inservice workshops were not a part of the project, and the project director thought this was a barrier; in fact, her staff is now beginning to develop a workshop series.

Project directors also commented on the topic of planning and communication. The project director of Educational Center for Disabled Students emphasized the importance of careful planning with respect to staffing and support issues, specifically by assessing whether the support exists that is needed to deliver services that are being offered. She said her project starting out thinking it could "offer the world." Staff volunteered to perform tasks such as picking-up and returning tests administered under non-standard conditions, and later found that they were unable to fulfill these responsibilities.

The project director of CAT felt her project's success was attributable to open communication with the faculty. Staff generally did a good job of describing the impact of disabilities on learning, and problems arose when there was a "slip-up" and this support was not provided. The director of Project OVERS/IMPACT emphasized the importance of communication with faculty; "its all about rapport, reputation, credibility, and friendliness," she said.

Dissemination of Literature

Six projects (Project ASSIST, Vocational Access, Project Access, Salish Kootenai ACCESS, LD Consortium, and Remedial Mathematics) that used strategies related to institutional and community involvement either developed their own written information for faculty on the topic of students with disabilities and postsecondary education, or provided faculty with information developed by an outside source. Project ASSIST and Vocational Access disseminated factual information on different disabilities developed by outside sources. Project staff of Project ASSIST enclosed within the packet of information sent to faculty at the

beginning of the year a pamphlet originally developed by the McBurney Resource Center at the University of Wisconsin[1] that defined learning disabilities, discussed characteristics, and provided suggestions of ways professors could accommodate students with learning disabilities. The project director chose this pamphlet because it was short and concise, which are important features to take into consideration when dealing with busy faculty who lacked time for extra reading. Along with the letter outlining the student's needs, Vocational Access project staff sent faculty a series of handouts that described different types of disabilities.

Project staff at three projects (Project Access, Salish Kootenai ACCESS, and LD Consortium) developed faculty handbooks. Project ACCESS staff developed a manual that discussed the rationale for different types of accommodations and provided guidance on how to make the accommodations. The manual provided background information on the nature of a broad range of disabilities, discussed the impact of disabilities on learning, listed accommodations, and included a copy of Section 504. It was created by two members of the project staff, with input from experts in the field, and was also informed by literature reviews. The faculty handbook developed by Salish Kootenai contained information on proper terminology, indicators of learning disabilities, Section 504, and the project itself. The handbook, which was used as a reference tool for faculty members to keep in their offices, was developed through a literature review conducted by project staff with assistance from students.

LD Consortium developed a number of different publications. Two faculty resource guides were developed by staff to educate faculty about learning disabilities and provide information about the project.

Faculty participating in Remedial Mathematics received tips on teaching students with learning disabilities from a resource book developed by project staff. The resource book was a curriculum guide containing over three hundred examples of problems used in the Remedial Mathematics class. The book was structured so that three columns of sequential information were presented for each problem. The first column described the skills the problem addressed, the next column listed the prerequisite skills needed in order to solve the problem, and the last column listed suggestions for teaching the problem to students with learning disabilities.

[1] this pamphlet is entitled **College Students with Learning Disabilities** and is available from AHEAD, (614) 488-4972.

Although the handbooks developed by the three projects were not formally evaluated, project directors reported that feedback indicated that the publications were helpful. The director of Project Access said that the manual developed by her project was received well internationally as well as nationally.

ADMINISTRATIVE SUPPORT

Support of administrators is critical to the success of postsecondary initiatives in general. In the case of the projects discussed in **Educating Students with Disabilities on Campus**, although high level administrators may not have had the same daily interactions with students as did faculty and staff, the support they voiced for students with disabilities was nonetheless highly valued. Administrative support can have a trickle down effect; if a high level administrator articulates that a priority of the institution is to serve all students effectively, including those with disabilities, then a tone of acceptance is more likely to permeate the entire postsecondary community.

Support From a High-Level Administrator

Most projects had the support of top administrators. At some of the smaller campuses (Project ASSIST, Project OVERS/IMPACT, Salish Kootenai ACCESS, and Project Access), top level administrators were more directly involved. For example, the chancellor at University of Wisconsin - Whitewater, the site of Project ASSIST, conveyed his belief in the importance of striving to meet the needs of all students through mentioning the project at school-wide events. The director of Project OVERS/IMPACT said the project was supported by all high level administrators. The superintendent and assistant superintendent emphasized the importance of the project in their opening remarks at the inservice workshops. The director of Project OVERS/IMPACT reported that staff could go to the "very top" when problems with faculty members arose. In such cases, top level administrators approached resistant faculty members to inform them of the importance of the project and discuss the general topic of accommodating students with disabilities.

The project director of Salish Kootenai ACCESS said the project had "complete support" from the president of the College. The College has had several projects related to disability, and the president is a strong advocate of individuals with disabilities. He occasionally dropped by the office of project staff to show his support. The president of Great

Falls Technical Center, the site of Project Access, was, according to the project director, "enlightened." He had a strong background in the administration of programs for "disadvantaged" populations and recognized that the services provided by Project Access would improve the campus for all students.

Four other projects (Remedial Mathematics, LD Consortium, CAT, and Vocational Access) also were supported by high level administrators, although these administrators were not necessarily involved in a direct and on-going manner. The project director of Remedial Mathematics felt the support her project received from the dean was crucial to its success. The dean gave project staff permission to limit the number of students enrolled in the Remedial Mathematics classes exclusively for students with learning disabilities. Typically 25 to 30 students enrolled in the classes; the number of students in the project's two sections of classes was restricted to 15.

The three institutions participating in LD Consortium had the support of their vice presidents through middle management supervisors. Project staff at the three institutions were overseen by middle management supervisors, who in turn reported to the vice presidential level. The individuals at the middle management level were involved in the delivery of services, whereas the vice presidents, representing the institutional interests, provided more global input. The project director suggested that in joint projects such as hers, the administration must be heavily involved in formulating the concept of the project, and project staff must clearly convey, from the beginning, the degree of involvement they are requesting from the administration. The project director also felt that in joint projects it is important to recognize that since participating institutions may have different missions and functions, they should be granted flexibility in how they choose to deliver services.

The project director of CAT was, at the time of the project, provost at Valencia Community College, the site of the project. She reported to the president, who was "absolutely in support of the program." Through him the project had the support of the College's Board of Trustees. The President of Linn Benton Community College, where Vocational Access was located, wrote a letter of support for the grant. The project director's division director directly backed Vocational Access, and included discussion of the project's activities on the agenda at weekly meetings.

Although Educational Center for Disabled Students was supported by faculty and staff at University of Nebraska - Lincoln, the project director reported that the project did not initially have a great deal of support from high level administrators. She advises others who are seeking support from administrators to look at the long range, and develop a vision for the

future. She feels it is important to clearly relay to administrators reasons the project is important and ways in which it fits into the existing structure. Administrators must receive this information on an ongoing basis, and from the beginning of the project period.

INSTITUTIONALIZATION

Through postsecondary and disability model demonstration grants, grantees are provided with the opportunity to improve service delivery for their specific target population as well as add to the knowledge base about services for postsecondary students with disabilities in general. The impact of funded projects on their host institutions and the larger field of disability and postsecondary education is most far reaching when the projects, or selected aspects of them, endure beyond the project period. Institutionalization was not necessarily an explicit goal of the nine projects discussed in this chapter of **Educating Students with Disabilities on Campus**. However, in most cases, it was the natural next step. Most aspects of all nine projects still continue, and in their original form. Through collaborating with on- and off- campus individuals and entities, enlisting the support of faculty and administrators, and by capturing some aspects of the institution's mission in the particular project, the models demonstrated that the services they provide are necessary; the provision of services thus became embedded in the structure of the institution.

Aspects of Projects that Continue

Aspects of Project Access that still continue include support services, inservice training, assessment, collaboration with the volunteer group, awareness activities, technical assistance to other institutions, and the Master Class (a study skills class that the Office of Vocational Rehabilitation made mandatory for all students whose education it supports). The project director said the realm of services to students with disabilities is constantly under review and staff are increasingly becoming more experienced and sophisticated in this area.

All aspects, with the exception of referrals to Work Unlimited, continue as part of Vocational Access. The project no longer refers students to Work Unlimited because it lacks funds with which to pay this organization. Services that remain include notetakers, in-class tutors, and test accommodations. There is now a tutoring lab in the industrial area that is convenient to students who have been working in the shops. The project director feels the

tutoring lab has had a positive, unifying effect because it serves all students, not only those with disabilities.

The only service Educational Center for Disabled Students no longer provides is cognitive training. Technology training still continues, but is not provided at the institution itself. The project director felt it was not necessarily the institution's responsibility to provide the training, and a number of outside agencies were qualified to do so. The Center still provides equipment (Braille, large print monitors) for students to use in the computer lab.

At CAT, students with disabilities are still placed in intern and co-op positions, which often lead to full or part-time jobs. The project director feels she and her staff are now better informed about the relationship between training and employment for students with disabilities. One of the premises of the grant was that too often, people with disabilities receive job training only to find that the jobs for which they are trained do not exist. The project director felt that as a result of reaching out to businesses, staff succeeded in educating employers about some of the barriers facing students with disabilities. At the same time, staff learned from employers about the types of skills they desired in employees, and were able to use this information to better assist students in making rational decisions regarding careers. The physical fitness component of CAT is still "well and strong."

Although Remedial Mathematics classes exclusively for students with learning disabilities are no longer offered at Queensborough Community College, the project director of Remedial Mathematics reported that the Department has changed the way Remedial Mathematics is taught in general as a result of the project. Prior to the project, the Remedial Mathematics course lasted a half-year. Weaker students without learning disabilities, in addition to students with learning disabilities, had high failure rates. As a result of the project, there is now a second track for Remedial Mathematics. Students who fail the arithmetic component of the placement exam are placed into the lower track, which is now a full year course for all students, not just those with learning disabilities. Through the project, staff also realized that tutoring was a very valuable service, and all students in Remedial Mathematics classes are now required to receive one hour per week of tutoring.

Services offered by the three projects participating in LD Consortium are intact. The project director reported that the institutions have a commitment to meeting the basic service needs of students, but it is necessary to seek grant funds to put "icing on the cake." Two of the institutions still conduct community outreach, and the third still does mentoring as well as outreach (mentoring is described in Chapter 4). The three institutions still maintain contact with each other, and faculty members go on site visits, where they give technical assistance.

At Salish Kootenai, the system for delivering support services continues in the same manner, although the site of the office responsible for delivering the services was switched from the Human Services Department to Student Support Services. This change fostered improved coordination with other offices, such as Financial Aid and the Registrar. The disability issues committee still continues at Salish Kootenai.

Most aspects of Project ASSIST continue in their original form; however, the program now charges a fee for its services. Enrollment began to slide when this fee was first instituted, but is now climbing again. As some of the participants progress through the project, they are hired as tutors. The project director also mentioned that former project participants often maintained ties with project staff and participants.

Child Services Demonstration Center has picked up most aspects of Project OVERS/IMPACT. Funding is provided by the institution and the Job Training Partnership Act (JTPA), and assessment is now conducted by the Office of Vocational Rehabilitation.

Most of the services in all nine projects are funded by the host institution. Some of the services are funded at least in part by outside agencies, such as Offices of Vocational Rehabilitation (Educational Center for Disabled Students) or JTPA (Project OVERS/IMPACT). The director of Project Access mentioned, as did the project director of LD Consortium, that due to the expenses associated with serving students with disabilities staff are always looking for alternative sources of funding, for example through foundations.

Factors that Enabled Projects to Continue

Project directors cited different factors that enabled their projects to continue, including demonstration of a need, good data, a stable staff, support of administrators, and the setting up of connections and collaborations. Six project directors (CAT, Project Access, Remedial Mathematics, Project OVERS/IMPACT, Salish Kootenai ACCESS, and LD Consortium) said they laid the groundwork for continuation of their projects by demonstrating the existence of a need for the information and services provided by them.

The project director of CAT said that not only did the project prove that what it did works and is necessary, but that staff have become "drowned in [their] own success" – the number of students they serve has skyrocketed. The director of Project Access said that through the project, a new mindset was established and the entire philosophy of the institution changed. Instructors now understand and appreciate the difference accommodative services

can make for students with disabilities, and the demand for assistance in accommodating students with disabilities has not disappeared.

The project director of Remedial Mathematics said that prior to the project, there had been "horrendous failure rates" and a "revolving door syndrome" in the Remedial Mathematics courses. The need for extra support for some students became clear as students in the classes offered by the project experienced better rates of success. These success rates were a factor that enabled aspects of the project to continue.

The director of Project OVERS/IMPACT noted that without the demonstration funding, staff would not have had the opportunity to show that the support provided through the project was an asset. The project did some "gentle leading" and shaping of behavior; staff did not expect too much at once. For example, initially staff just asked instructors to accept the student and coordinated the implementation of the modifications themselves. Then, staff showed instructors how to implement the modifications, and instructors eventually realized that the modifications could help all students.

An example of the way in which Project OVERS/IMPACT demonstrated that accommodations and services benefit more than only a small number of students is related to a requirement for admission into the accounting program. This program had an entrance exam that was difficult for some students with learning disabilities because it required use of high level reading skills to pass. Project staff worked with the instructor to reduce the level of reading skills, and the instructor then began to administer this new version of the exam to all students. An unanticipated result was that many more students were eligible for admission into the program. The project director felt it is important for projects to adopt this type of a broad focus.

Two project directors (Project ASSIST and Vocational Access) felt the good data their projects maintained was a factor that enabled continuation. Project ASSIST maintained data on graduation rates and GPAs of participants. The director of Project ASSIST felt the project's solid reputation as well as the data it collected was a crucial factor that allowed continuation. The project built a good reputation for itself by treating all people with honesty, care, and fairness. The project director spent a lot of time conducting public relations activities for the project, and she felt that such activities were important.

Two project directors (Project Access and CAT) felt that commitment from high level administrators was an important factor that enabled continuation. The director of Project Access said there was no resistance from the institution; the commitment on the part of the president was there from the beginning. The project director of CAT said that "the commitment

is there from the top" and the president was very willing to allocate funds in a fiscally responsible manner, once the project's effectiveness was demonstrated with outside funds.

Successful projects that reached far beyond their own small staffs to involve their institutional leaders, faculty, and staff as well as community leaders from public, private, and service organizations were able to provide the array of services necessary for the full participation of students with disabilities. Such outreach activities enhanced the likelihood that most aspects of these projects -- made possible with the federal grant for a limited period of time -- would be incorporated by the host institution as standard services and accommodations.

CHAPTER 4.
ACADEMIC SUPPORT SERVICES: Strategies for Educating Students with Disabilities

One of the factors that has enabled increasing numbers of students with disabilities to participate in postsecondary education is the availability of an array of academic support services. As college administrators become better educated about the nature of disabilities and ways in which academic support services can foster increased chances of success for students with disabilities, institutions have generally begun to offer an increasingly broad range of services to these students.

Indeed, all institutions that receive federal funds (this includes most colleges and universities) must comply with Section 504, and all public and private colleges and universities must comply with the ADA. Both laws prohibit discrimination against qualified individuals with disabilities. Students with documented disabilities have the right to request modifications, accommodations, or auxiliary aids that will enable them to participate in and benefit from all postsecondary educational programs and activities. Postsecondary institutions must make any necessary changes to ensure that the academic program is accessible to the greatest extent possible by all qualified students with disabilities. However, a college or university has the flexibility to select the specific aid or service it provides, as long as the aid or service is provided in a timely and effective manner.

As used in **Educating Students with Disabilities on Campus**, the term *academic support services* includes some of the most basic accommodations that are known to help students with disabilities succeed, and that many schools provide, as well as certain services that supplement these basic accommodations. The strategies included in the category of academic support services were integral components of 11 of the projects identified as successful by the Advisory Panel. These 11 projects are:

1. Project Access, Montana State University College of Technology - Great Falls.
2. Project Access, Salish Kootenai College (MT). Hereafter referred to as Salish Kootenai ACCESS.
3. Educational Center for Disabled Students, University of Nebraska - Lincoln.
4. Comprehensive Learning Program, Fordham University (NY).
5. Project CLASS, New York University.

6. Teaching Remedial Mathematics to Students with Learning Disabilities, Queensborough Community College (NY). Hereafter referred to as Remedial Mathematics.
7. LD Consortium, Central Piedmont Community College (NC).
8. Projects OVERS/IMPACT, Child Services Demonstration Center (OK).
9. Vocational Access Project, Linn-Benton Community College (OR).
10. Project STRIDE, Pennsylvania State University and Altoona Area Vocational Technical School (PA).
11. Project ASSIST, University of Wisconsin - Whitewater.

Based on project directors' descriptions of their projects' use of academic support service strategies, HEATH staff divided these services into four sub-categories: **504/ADA Services, Tutorial Services, Study Skills Instruction,** and **Technological Applications**. The term *504/ADA services* is used here to describe the types of services that provide qualified students with disabilities with *access* to programs, and that many institutions provide in order to comply with Section 504 (which is reinforced by the ADA). Although the obligation of institutions to provide these specific services is not fully delineated in the law, the Regulations implementing Section 504 do require institutions to provide access to programs, and institutions therefore essentially must provide these services in order to comply with the spirit of the law.

Academic support service strategies included in the remaining sub-categories-- *tutorial services, study skills instruction* and *technological applications* -- enhanced project participants' *personal* competence, and are considered less standard in nature. While the Regulations implementing Section 504 require institutions to provide program access to qualified students with disabilities, institutions need not provide accommodations for *personal* use or study. Accommodations or services of a personal nature include those that students might use to prepare for an exam, or to enhance learning or skill development. The accommodations and services of this nature that were used by projects identified as successful by the Advisory Panel fall under the categories of tutorial services, study skills instruction, and technological applications. Institutions that provide these services are rising "above and beyond" their obligation to comply with Section 504 and the ADA.

The academic support services discussed in this section are those that were provided to students in targeted programs of projects identified as successful by the Advisory Panel of the *Successful Practices* study, and are not necessarily reflective of *all* academic support service

strategies from which students with disabilities may benefit. Figure 2 outlines the strategies that are discussed in this chapter.

FIGURE 2:

ACADEMIC SUPPORT SERVICES:
Strategies for Educating Students with Disabilities

504/ADA Services

- Notetakers
- Scribes
- Taped Texts
- Readers
- Test Accommodations
- Assistance with Registration
- Taped Lectures
- Interpreters

Tutorial Services

- Tutoring Labs
- Paid Tutors
- Volunteer Tutors
- Peer Tutors
- Mentors

Study Skills Instruction

- Study Skills Courses and Workshops
- Small Group Study Sessions
- Study Guides
- Color Coding Texts
- Index Cards
- By-pass Skills; Compensation instead of Remediation

Technological Applications

- Computers
- Computer-Assisted Instruction

504/ADA SERVICES

The term *504/ADA services* is used here to refer to the basic services most frequently requested and used by students with disabilities at the postsecondary level to gain access to the academic program. 504/ADA services offered by the 11 projects discussed in this chapter included: notetakers, scribes, taped texts, readers, test accommodations, assistance with registration, taped lectures, and interpreters. Project directors of ten of the 11 projects said their projects used 504/ADA services, and most of these projects provided a fairly broad range of services. The only project that did *not* offer 504/ADA services (but did offer other academic support services) was the Comprehensive Learning Program at Fordham University, a literacy program for adults with very low (below third grade) reading levels; none of the 504/ADA services used by the other projects were relevant to this project.

Again, it must be noted that the category 504/ADA services has been created by HEATH staff for the purpose of describing some of the academic support services offered by projects identified as successful. Section 504, as reinforced by the ADA, requires institutions to provide modifications, accommodations, or auxiliary aids that are necessary to permit access by qualified students with disabilities. The 504/ADA services described below are examples of some common accommodations; however, they are not the only ones. The institution's decision about which types of accommodations to provide are dictated by the needs of its individual students.

Notetakers

Students with a broad spectrum of disabilities may benefit from having someone else take class notes for them. Students with learning disabilities might benefit from notetakers, as they may be unable to take their own notes either because they lack the necessary reading, written language, or organizational skills, or because they have difficulty simultaneously concentrating on the lecture and taking notes. Through using notetakers, students with hearing impairments can focus their attention on the instructor and/or interpreter during class and, like other students, review class notes at a later time. The nature of some mobility impairments is such that writing is difficult; students with these disabilities might also use notetakers.

In-class notetakers were used by eight of the ten projects (Project Access, Project CLASS, Educational Center for Disabled Students, Project ASSIST, Project STRIDE, Vocational Access, Salish Kootenai ACCESS, and LD Consortium) that used 504/ADA services. In most

all of these projects, the notetakers were peers, usually students in the same class as the individual in need of assistance. All eight projects used volunteer notetakers and three (LD Consortium, Vocational Access, and Project ASSIST) also used paid notetakers in some situations. LD Consortium used paid notetakers when volunteers were not available. Vocational Access initially used paid notetakers, but relied on volunteers by the end of the project.

Project ASSIST was the only project that did not use other students as notetakers at all times. This project had a variety of approaches to providing notetakers, one of which was to have project staff themselves take the notes. The project director said project staff also enlisted the assistance of professors in identifying students to serve as notetakers; unfortunately, the students selected were not always reliable. In some cases, the project director said, students knew someone who was willing to take notes for them. Eventually, Project ASSIST was able to use Vocational Rehabilitation funds to hire students to serve as notetakers.

In most projects that used notetakers, faculty members assisted project staff to select notetakers by identifying competent students in their classes. Notetakers were then typically supplied with materials with which to take and duplicate notes, either by project staff or by the student in need of the notes. The project director of Educational Center for Disabled Students commented, however, that faculty members were often unable to identify competent students within the first two weeks of class because they did not know the students well enough. Therefore, she said, project staff themselves went into the classroom and identified students who seemed particularly motivated. The project director noted that able students generally sit in the first few rows of the class. Prior to asking the student to serve as a notetaker, Educational Center for Disabled Students project staff reviewed the student's notes. If this approach was not successful, project staff then turned to the instructor for assistance. In Project CLASS, project participants themselves selected a classmate who agreed to take notes, or a counselor accompanied the student to class and helped identify a potential notetaker.

Scribes

Students who have disabilities that make it difficult for them to write with a degree of legibility that is acceptable to them or their instructors might choose to dictate their work to another person, a "scribe," who then transcribes this work. The role of the scribe is to record exactly what is dictated; scribes do not assist the student in any way with the content of the

material. Scribes are often used during tests or exams. Scribes were used by five projects (Educational Center for Disabled Students, Project CLASS, LD Consortium, Project ASSIST, and Vocational Access). Two of the five project directors (Project CLASS and Educational Center for Disabled Students), however, said students were encouraged to learn how to use the computer to write their own work. The project director of Educational Center for Disabled Students explained that although the project provided scribes on an as-needed basis, especially to freshmen, there was a strong emphasis on using computers as a mechanism for independence.

Taped Texts

Taped texts are helpful to some students with learning disabilities as well as students with visual impairments. Students with dyslexia (a specific type of learning disability that impedes the reading process), for example, might benefit from having information read to them. Nine projects (Educational Center for Disabled Students, Project CLASS, LD Consortium, Project OVERS/IMPACT, Project ASSIST, Project Access, Vocational Access, Project STRIDE, and Salish Kootenai ACCESS) provided participants with taped texts. Many of these projects obtained taped texts from Recording for the Blind (RFB)[1], an organization that provides recorded textbooks, books on diskette, and other educational and professional resources to individuals who cannot read standard print because of a visual, physical, or learning disability.

Many project directors said that in cases where students had to wait for their books to arrive from RFB, or if the book was not available from RFB, project staff or volunteers read and recorded the books themselves. The same people who were volunteer tutors for Project Access also recorded books for project participants. Educational Center for Disabled Students recruited individuals to record textbooks from the greater community, working with groups such as the United Way, the Retired University Employees organization, and probation officers who were seeking community service activities for their clients.

[1] Recording for the Blind can be contacted at 20 Roszel Road, Princeton, NJ 08540. (609) 452-0606. FAX: (609) 987-8116. Customer Service: (800) 221-4792.

Readers

Individuals who read material out loud perform some of the same functions as do taped texts, and for the same disability groups. Some students who rely on recorded texts need readers to supplement that service for other assignments. Additionally, some students, including those with learning disabilities, prefer to have their exams administered to them orally by a reader. Five projects (Educational Center for Disabled Students, LD Consortium, Project Access, Vocational Access, and Salish Kootenai ACCESS) used readers. The project directors of some of the projects that did not use readers said readers were not necessary because of the availability of taped texts from RFB.

Test Accommodations

Test accommodations are a common 504/ADA service, used by students for a variety of reasons. The wide range of test accommodations used by the ten projects that provided 504/ADA services included extended time and/or a private place in which to take the exam, the revising or rewording of tests for lower reading skills, interpreters, signed video tests, large print versions, and the use of computers, scribes, readers, and proofreaders. Educational Center for Disabled Students, a project that focused heavily on technology, used computers extensively for test accommodations. For example, one participant in this project needed to have all typed text enlarged. This student's professors sent his exams to project staff, who used a computer to enlarge the type.

Assistance with Registration

Assistance with registration is another 504/ADA service that helps ensure students are provided with the support they need in order to successfully complete their program. Students with mobility impairments, for example, need to be in classes that are in physically accessible locations and may also wish to select consecutive classes that are located in rooms or buildings that are near one other. Such students might be guaranteed slots in the classes of their choice through preregistration.

Students with other types of disabilities may use preregistration to reserve space in classes taught by specific faculty members. Many students perform best in classes where a clear match exists between their personal learning style and the corresponding appropriate

teaching style. Some students will do better in a class taught by a faculty member who is lecture-based, while others will favor a class taught by a paper-oriented faculty member.

Assistance with registration can also make the chaotic experience of open registration less difficult for some students with disabilities. Some students find it helpful to have someone by their side to guide them through this confusing process.

Eight projects (Vocational Access, Salish Kootenai ACCESS, Educational Center for Disabled Students, Project CLASS, LD Consortium, Project OVERS/IMPACT, Project ASSIST, and Project Access) offered assistance with registration, mostly in the form of preregistration. In Vocational Access, project staff were available to physically walk through the registration process with students. Salish Kootenai ACCESS project staff established a separate registration procedure for project participants, with a separate table, and ensured that some students did not have to wait on long lines. Some of the projects that offered assistance with registration also provided general guidance to students as they were selecting classes, including feedback on the manageability of students' workloads.

Taped Lectures

Taped lectures are helpful to students who, for various reasons, wish to reinforce subject matter by reviewing at a future date the content of lectures they attend. In eight projects (Project CLASS, LD Consortium, Project ASSIST, Project Access, Vocational Access, Project STRIDE, Remedial Mathematics, and Salish Kootenai ACCESS), students taped lectures they attended. In most of these projects, the taping of lectures was arranged by students with the faculty. Students discussed their need for this accommodation with the instructor ahead of time and either brought their own recording equipment to class or borrowed it from the campus media center or Office of Disabled Student Services.

Some project directors said faculty members initially resisted the idea of having their lectures taped, citing concerns related to copyrights and academic freedom. Such resistance generally occurred only in rare instances and in most cases faculty members became cooperative after they were provided with information on accommodations for students with disabilities. One project director (Project ASSIST), however, did encounter a small number of professors who remained unwilling to have their lectures taped. She ultimately asked the dean, who was supportive of the project, to contact these professors and provide them with information on the rights of students with disabilities.

Interpreters

An interpreter is a communicator between individuals, or between an individual and a group, who uses a mode of communication designated by the individual who is deaf. Recent court rulings indicate that Section 504 places primary responsibility on the state Vocational Rehabilitation agency to provide interpreters to the client in college or in other postsecondary institutions. If a student is not a Vocational Rehabilitation client and no other funding sources are available, then the college may have the ultimate financial responsibility for interpreters.

Two projects (Educational Center for Disabled Students and Project Access) served students who are deaf/hard-of-hearing and therefore used interpreters. The project director of Educational Center for Disabled Students said that in rare cases, problems arose when students who had requested an interpreter for a class did not show up for the class. Project staff addressed this problem by instituting a policy stating that if a student failed to show up for a class three times and had not contacted project staff in advance regarding the absence, then the student was billed for the interpreter for that single class. The policy has never had to be implemented.

TUTORIAL SERVICES

Tutors may assist all students, including those with disabilities, by teaching or reinforcing subject matter of courses with which they are having difficulty, as well as providing useful tips on study skills. In one-on-one or small group tutoring sessions, students are provided with opportunities to ask questions and receive instant feedback on their progress. The tutor-tutee relationship sometimes also develops into a mentor-mentee relationship. Although many institutions do provide special tutoring services to students with disabilities, they are not obligated to do so in order to comply with Section 504, as tutoring services are considered to be for personal use and study and not to provide access to the program. However, if the institution makes tutoring services available to all students on campus, then it must ensure that these services are accessible to students with disabilities.

Tutorial services were offered by ten of the 11 projects that used strategies related to academic support services. The types of tutors used by these ten projects have been divided into five subgroups: tutoring labs, paid tutors, volunteer tutors, peer tutors, and mentors. Some projects offered more than one type of tutoring service, and therefore appear under more than one subgroup. This grouping does not preclude the existence of other types of tutoring; rather, it

is a summary of the types of tutors used by projects identified as successful by the Advisory Panel of the *Successful Practices* study.

Tutoring Labs

Tutoring labs, open to all students at the institution, are most often staffed by professionals employed by the institution who have expertise in teaching and learning. In four projects (Project OVERS/IMPACT, Project STRIDE, Vocational Access, and Salish Kootenai ACCESS), participants accessed the services of tutoring labs located at the host institutions.

Tutoring was a central component of Project OVERS/IMPACT. A resource teacher, who was working towards a M.A. in Learning Disabilities, did the tutoring. The Resource Room was open all day, and participants scheduled themselves in at their convenience. The tutoring was as individualized as possible, and the emphasis was on assistance in coursework students found difficult. Computerized support, including software programs for students in certain vocational areas, was available to students in the Resource Room.

Tutors were available for Project STRIDE participants who needed this service. Students who needed help in math received tutoring at the school's math lab, which was routinely staffed by a qualified individual. One-quarter to one-third of the project participants received tutoring at the math lab.

In Vocational Access, tutoring labs were staffed by trained professionals with backgrounds in special education and learning disabilities. Labs were open four days a week for two hour blocks in both the mornings and afternoons. Students were free to choose their own hours, and many Vocational Access participants scheduled themselves in for the full two hours.

Salish Kootenai ACCESS project participants also used the services of the College's tutoring lab, where they were provided with a variety of options. They could drop-in on an as-needed basis, or they could schedule regular appointments. They could receive individual attention, or use a computer-assisted program. Instruction was provided in study skills as well as in subject areas.

Paid tutors

Paid tutors used by projects identified as successful received wages for their services and in some cases had training in a disability-related area. In most cases they were students at

the institution. Four projects (Project ASSIST, Remedial Mathematics, Project CLASS, and Vocational Access) used paid tutors.

Project ASSIST hired undergraduate and graduate students to tutor project participants in academic areas. Tutors attended a two-day training session on learning disabilities offered at the beginning of the academic year and received follow-up training in specific techniques on a monthly basis during the remainder of the year. The amount of time project participants spent with their tutors varied based on individual need, ranging from one to eight hours per week. Participants were assigned both a primary "generic" tutor, who also served as an advocate, and a "content" tutor, who was particularly knowledgeable in the areas in which the student needed most help. Students could "plug themselves in" to the different content areas as needed.

The director of Project ASSIST had a number of comments regarding successful aspects of the tutoring component as well as suggestions for others. Tutors had previously taken the class in which they were tutoring, and the project director felt tutees benefited from the tutors' first hand knowledge of the course. Many tutors came in as freshmen or sophomores and stayed with the program until they graduated, a feature that fostered continuity. The project director emphasized the importance of training tutors in interpersonal skills as well as in learning disabilities. She also recommended that tutoring programs employ one person to monitor and organize the program. Finally, she mentioned the need for tutors to maintain good notes that document student activity and progress throughout the course of the tutoring sessions.

In Remedial Mathematics, tutors were juniors and seniors enrolled in advanced mathematics classes. They attended a three to four hour sensitivity training session, which covered topics such as the definition of a learning disability, characteristics of learning disabilities, and ways to talk to students with learning disabilities. Specific strategies to use in the tutoring of mathematics were also discussed.

Remedial Mathematics participants were tutored in a group setting. Five or six students were placed in a group with two tutors, and this group was supervised by either the LD Specialist or the class instructor. The supervisor directed tutors on who to work with, based on individual needs of the students in the group. The sessions met once a week and lasted one hour. Tutors participated in a weekly one hour consultation with the LD Specialist, in which they discussed any emotional or attitudinal problems they noted in their tutees and received suggestions on how to proceed. The same tutors were always used for the same group of students, a factor that the project director believed encouraged the development of personal relationships and constancy.

Remedial Mathematics recruited tutors through various informal and formal networking activities. Project staff asked faculty in the Mathematics Department to recommend students to serve as tutors. The project director also said many tutors had friends who were interested in tutoring.

The project director of Remedial Mathematics felt the tutoring component was extremely helpful to participants, referring to it as the "linchpin outside of the classroom for success." She said the fact that tutors were able to watch the students work was important, because students with learning disabilities often come up with answers using ingenuous methods. The project director believed a model that encourages the development of close personal contact between the tutor and the student is most effective because an ongoing relationship may be established that provides both positive and negative reinforcement. She noted, however, that this model is an expensive one.

The tutors used by Project CLASS were graduate students in NYU's school psychology program. Most had backgrounds in special education, and were therefore knowledgeable in the use of cognitive skills strategies. Tutors met with their students in a small group setting twice a week for at least one hour and focused primarily on areas in which students experienced difficulty. The tutor training consisted of inservice training during the summer, as well as the regular coursework of the graduate students. Tutors were supervised individually and met periodically as a group to discuss issues that arose.

The director of Project CLASS said that since some of the difficulties tutors encountered were related to attitudinal problems, it was necessary for them to be attuned to the "psychological and emotional overlay" of students with learning disabilities. He emphasized the importance of access to counseling for students with learning disabilities and mentioned that tutees' progress must be monitored and tracked.

Vocational Access also used paid tutors, some of whom had backgrounds in special education. Tutors were paid on two different pay schedules, depending on their experience. Project participants met with their tutors at least once a week and lesson plans for the sessions were based on assignments in the class(es) students found difficult. If the tutor had not previously taken the class in which the tutee needed help, he or she enrolled in the class along with the tutee. Tutors were recruited through a school-wide tutoring program run by Linn-Benton Community College, the site of the project. They were not exclusively students at the school. For tutors who were students at the school, the training consisted of a three credit class on general tutoring techniques. Informal support sessions were provided as needed.

The project director of Vocational Access commented that although the tutoring component worked well overall, the training aspect did present some concerns. Ideally, the project would have provided tutors with formal training in the area of disability and teaching techniques, as many of the problems tutors encountered during sessions stemmed from a lack of training. The project director also observed that project participants sometimes became too dependent on their tutors.

Volunteer Tutors

Volunteer tutors offer their services free-of-charge and have varying levels of experience. At the postsecondary level, volunteer tutors may be recruited from the community at large, from another program of the institution, or from the same program as the tutee. Two projects (Comprehensive Learning Program and Project Access) used volunteer tutors.

Tutoring was an integral component of Fordham University's Comprehensive Learning Program, which served adults who were very poor readers. Tutors were recruited from Fordham's "College at 60" program, which is open to older students who wish to take liberal arts classes. Most of the tutors were 55 or older.

The initial tutor training consisted of six sessions and provided information on word attack and other reading techniques, as well as the causes of learning disabilities and methods of relating to individuals with serious learning difficulties. Project staff created lesson plans for the tutors, and tutoring sessions focused on practical skills, such as filling out forms, writing letters, and other basic survival skills. Support sessions for tutors were offered every six weeks. The original goal was for the tutors to meet with their students twice a week, but due to logistical problems (transportation costs, etc.), sessions took place once a week for two and a half hours.

The project director said a factor that facilitated success was the working relationship Comprehensive Learning Program project staff had established with faculty who were part of Fordham's "College at 60" program. These faculty helped identify individuals to serve as tutors.

A factor that inhibited success was related to the vast amount of time needed for training. The project director found that the tutors required extensive training in techniques such as word attack, and that it was often necessary to explain concepts more than once. Also, some of the tutors got upset when their tutees did not show up for a session, taking the absence personally. The project director pointed out, however, that members of this hard to reach

population are frequently absent, and these absences can be attributed to a number of valid reasons that are unrelated to the tutor.

The project director of Comprehensive Learning Program had a number of suggestions for those who wish to start a volunteer tutoring program. She emphasized that although volunteer tutors are "cheap labor," it is important to realize that it is *not* inexpensive to implement a volunteer tutoring program. Staff time must be devoted to management and coordination of the program; ideally, one person is in charge of supervising the tutors. Also, the project director suggested the idea of enlisting one person to serve as a permanent substitute tutor. And, she felt it is necessary to formally recognize the efforts of the tutors; the project did this through awarding diplomas. Finally, she mentioned that a problem with volunteer programs is that tutors often drop out, and it is important to make efforts to encourage them to remain with the program. The tutors who were part of the "College at 60" program were required to stay for one year, as part of their coursework.

Project Access used volunteer tutors who were members of a professional service organization comprised of spouses of physicians. These individuals were particularly well-educated in the areas of allied health and science. They generally met one-on-one with their students, as often as was necessary, at least twice a week. Sessions lasted one to two hours, and focused on all subject areas, with an emphasis on science and math. The goal of the tutoring was to help students keep up with their classes, and sessions therefore focused on any immediate difficulty students were experiencing. A two to three hour training session was provided and ongoing support from project staff was offered on an as-needed basis. Tutors received recognition through various media and awards events.

A factor that led to the success of Project Access' tutoring component, according to the project director, was the high education and commitment level of the volunteers. The project director felt the project did a good job of identifying an appropriate outside group to take on the tutoring project as a philanthropic activity. She emphasized the importance of developing an effective process for targeting qualified tutors who have the appropriate amount of education and dedication and providing recognition to the tutors for their efforts.

Peer Tutors

In projects that the Advisory Panel identified as successful, peer tutors were either students who were in some of the same classes as project participants, or other project participants. Peer tutors helped students reinforce subject material they were learning in class,

as did volunteer tutors, paid tutors, and professionals working in tutoring labs; however, the structure of the peer tutoring components used by the projects was less formal than that of the other tutoring components. Peer tutors were used by two projects (Project Access and Project CLASS.)

Project Access participants who experienced difficulty in a class were tutored by a peer in the same class who was doing well. The same training was offered to peer tutors as was offered to the volunteer tutors in this project, with an added emphasis on confidentiality. The structure of the sessions was also similar to that of the volunteer tutoring component. Some peer tutors were paid, while others volunteered their services. Those who were paid received wages either from the Office of Vocational Rehabilitation or as part of a work-study program.

According to the director of Project Access, a factor that contributed to the success of the peer tutoring component was that the peer tutors had high motivation levels and a solid understanding of specific courses. One drawback was that the amount of time students were able to devote to the tutoring was often limited.

Project CLASS used peer tutors on an informal basis. Project participants were matched up with one another, based on relative strengths and weaknesses. The paid tutoring component of this project was more structured than the peer tutoring component.

Mentors

Although the role of a mentor is not to assist in the teaching of specific subject material, as is the role of a tutor, mentors are included in this section because the close personal contact mentors establish with students is similar in nature to the contact established between tutors and students. One project (LD Consortium) used mentors.

LD Consortium used mentors as a means of providing participants with the opportunity to interact with older college students on a one-on-one basis. Most of the mentors, who were paid, had disabilities themselves, and were recruited for the program from the pool of students served by the Office of Disability Support Services at University of North Carolina - Charlotte, one of the three participating institutions. Peer mentors worked with both college and high school students with learning disabilities, the two groups of students targeted by LD Consortium. Mentors held monthly meetings with groups of college students on a range of different topics surrounding self-advocacy. The main focus of the mentoring was self-awareness and other self-determination skills; however, some academic tutoring took place as well. At the high schools, mentors served as positive role models for the high school students

and assisted instructors to facilitate workshops for students focusing on study skills, social skills, and transition issues.

The mentors participated in a promotional videotape produced by the project and also spoke to parent groups. A site-specific training package was developed for and used by the mentors. The project director of LD Consortium felt that the mentors, as well as the project participants, benefited from the project. She noted that the use of peers had an especially positive effect with the high school students. These students had not previously had the chance to meet college students with disabilities, and opened up and learned a great deal through the experience.

STUDY SKILLS INSTRUCTION

Many academic skills and techniques used by students in various postsecondary programs are more advanced than those used in high school programs. Some students, including those with disabilities, require assistance in developing these skills. Guidance in developing study skills appropriate for postsecondary settings was provided by ten of the 11 projects that used strategies related to academic support services. This guidance ranged from highly structured study skills workshops and courses in which specific academic skills and more general time management strategies were presented, to small group study sessions where students studied with one another, to instruction in the use of specific techniques, such as color coding of texts or index cards. Some projects also developed alternate study guides for program participants. The types of study skills instruction services described below reflect only those services provided by projects identified as successful by the *Successful Practices* study; it is not comprehensive. Institutions are *not* required to provide study skills instruction in order to comply with Section 504. Those institutions that do provide this service are going "above and beyond" their obligation to comply with the law.

Study Skills Courses and Workshops

Through attending study skills workshops and courses, students may gain useful tips on ways to improve their performance in academic and vocational classes. Such workshops and courses may focus on broad issues such as time management and self-esteem, and/or provide practical information on reading, notetaking, and study skills. Seven of the 11 projects (Project Access, Project STRIDE, LD Consortium, Educational Center for Disabled Students, Project

ASSIST, Remedial Mathematics, and Project CLASS) offered study skills workshops or courses; one of these (Project STRIDE) also featured sessions on job skills.

Project Access featured a "master student class," taught by the project director, which focused on the total preparation of the student. Topics of the course, which met daily for one hour and lasted one semester, included goal setting, time management, and self-esteem. Participants included other disadvantaged students in addition to students with disabilities, and while Project Access participants were encouraged to take the course, they were not required to do so. According to the project director, a benefit of this component was that students in the class developed a cohort group, which functioned as a type of support group. The project director reported that the course was so successful that it is now routinely offered. It is taught by regular faculty members who were trained in the course as part of Project Access.

Educational Center for Disabled Students offered a study skills class that focused on notetaking and reading skills and was primarily intended for students with learning disabilities. The class met for two hours once a week over the course of one semester, and was led by the project director. The class was not mandatory, and there were never more than seven to eight participants.

Project ASSIST featured a voluntary summer transition program for project participants (the summer program is discussed in Chapter 5, *Summer Transition to College Programs*), which included a study skills course. Project participants who did not participate in the summer program enrolled in the study skills course during the regular school year. Project ASSIST also offered mini-courses once a semester on topics such as notetaking, time management, and how to study from a textbook. However, these courses were not required, and the project director reported that they were not well-attended. The project director added that tutors worked on study skills with their tutees on an individual basis.

A series of weekly study skills workshops focusing on reading, notetaking, and test taking was offered by the LD Consortium to its participants who were college students. The sessions were voluntary and lasted for one hour, and a maximum of 15 students attended each one. The project director reported that a majority of project participants took part in at least some of the sessions and that the sessions were also delivered at the high school, where there was full attendance.

Project STRIDE offered two different types of study skills sessions -- one focusing on academic skills, and another on job/life skills. Half of the students participated in the study sessions on academics, which centered on reading, listening, and notetaking strategies. The

structure was either small group or individualized, depending on each student's needs. Group sessions met weekly for a couple of months and were led by the project coordinator.

Project STRIDE's other type of skills session focused on interpersonal communication and job seeking skills, and was the only part of the project offered on a routine basis to most participants. Sessions focused on skills such as filling out a job application and interviewing, and "what if" scenarios that encouraged participants to discuss ways to deal with people were used. Sessions met weekly for two hours and were led by the project coordinator.

In Remedial Mathematics, the LD Specialist led a seminar every three to four weeks focusing on various aspects of being a good student. Sessions covered topics such as how to study for a test and how to organize time, and attendance was mandatory for project participants.

Project CLASS' study skills sessions focused on study techniques such as summarizing and underlining. Several different study groups were offered, most of which met once a week for one hour.

Small Group Study Sessions

Three projects (Project Access, Project ASSIST, and Salish Kootenai ACCESS) provided participants with the opportunity to study with each other in small group settings. The small group study sessions offered by Project Access were convened at the end of the academic day for project participants and provided them with the opportunity to discuss any academic concerns.

Project ASSIST featured small group study sessions that met once or twice a week, for one to two hours. These sessions, which were led by tutors who were knowledgeable in the course content, were held when there was more than one project participant in a particular course. The project director felt the study sessions worked well because they gave students opportunities to ask questions of each other.

Salish Kootenai ACCESS offered small group study sessions, but the project director reported that project participants did not attend them. Students did, however, set up their own informal study sessions. The project director commented that the "community approach," which encouraged the establishment of informal linkages among participants, was successful.

Study Guides

Three projects (Project OVERS/IMPACT, LD Consortium, and Project Access) provided participants with individualized material to meet their unique needs through either acquiring, developing, or assisting in the development of alternate study guides.

Many different types of study guides were used by Project OVERS/IMPACT. For material that was particularly difficult, students used computer programs into which the user could input information. The structure of the program was already set, and through inputting selected material, the content was adapted to meet the unique study needs of the individual.

LD Consortium developed two types of site-specific study guides for project participants. The first was a generic "how to study" guide that discussed topics such as concentration, how to get tutors, and other academic-related concerns. The second type of alternate study guide, a "survival kit" produced by the peer mentors, discussed the overall college experience from the perspective of the college student and was used as an advocacy tool.

The alternate study guides used by Project Access were developed on an individual basis. Inservice was conducted with faculty to help them develop guides.

Color Coding Texts

Color coding, or highlighting key portions of texts, is a technique that helps students focus on important information. The actual color coding can be done by project staff, or, alternatively, instruction can be provided to students in how to color code their own texts. Five projects (LD Consortium, Remedial Mathematics, Project CLASS, Project ASSIST, and Project OVERS/IMPACT) provided instruction in this technique. One of the projects (Remedial Mathematics) used symbolic highlighting. Students in this project learned how to use circles, arrows, boxes, and directional cues as mechanisms to highlight important points.

Index Cards

Index cards are a study device students may use to organize their ideas and receive internal feedback. Five projects (Educational Center for Disabled Students, Remedial Mathematics, Project CLASS, LD Consortium, and Salish Kootenai ACCESS) taught students how to use index cards.

In Educational Center for Disabled Students, index cards were used by some students with learning disabilities who had trouble with memorization. Students created index cards themselves by writing the word on one side and the textbook definition on the other. Project staff reviewed the index cards with the students. Staff asked the students to write down examples of the definition, as students often copied and memorized a definition verbatim, but then were unable to recognize the definition on a test because it was in a different context.

In Remedial Mathematics, some students with memory problems used index cards to learn mathematical rules. Students wrote the rule at the top of the index card, and an example of a problem that uses the rule at the bottom. Students kept the index cards in front of them when they did homework. Participants in LD Consortium and Salish Kootenai ACCESS also learned how to create index cards to help with memorization.

Project CLASS students used index cards as a review mechanism to prepare for classes. Index cards contained key ideas of the subject, and students looked at the cards before entering class, most often when a test was being administered. Students developed the index cards in conjunction with their tutors.

By-pass Skills

By-pass skills include a range of "alternate" techniques used to obtain information. Examples of these skills include the use of technology, such as calculators and computers. The idea behind by-pass skills is that it is more productive for students to learn how to compensate for their deficits than it is to remediate them. Seven projects (Educational Center for Disabled Students, Project CLASS, LD Consortium, Project OVERS/IMPACT, Project Access, Salish Kootenai ACCESS, and Project ASSIST) taught participants by-pass skills. Some of the project directors said this philosophy was one of the premises of their projects. Others projects also used remedial techniques in some situations.

TECHNOLOGICAL APPLICATIONS

Recent advances in technology have had positive impacts on many aspects of life for individuals with disabilities. Adaptive technology such as speech boards for those with communication disabilities or assistive listening devices for students who are hard of hearing may provide access to programs. The use of computers in postsecondary level courses is now commonplace; without them, students with disabilities, as well as other students, may be at a

disadvantage. Many students with disabilities use computers equipped with spellchecks for word processing, while others use specialized commercially purchased computerized programs to study specific content areas. While some students own computers, others use computers located in the institution's computer centers. Computers were the main type of technology used by projects identified as successful by the Advisory Panel. All 11 projects that used academic support services used computers. While a small number of projects provided students with access to adaptive computer equipment so that they could gain program access, most projects used computers to assist participants to enhance learning, primarily through word processing or computer-assisted instruction.

Computers

Six projects (Educational Center for Disabled Students, Project CLASS, Vocational Access, Project ASSIST, LD Consortium, and Salish Kootenai ACCESS) used computers primarily for word processing, and most of these projects provided training in word processing. One project (Educational Center for Disabled Students) used typing tutors, a program that teaches students how to type. Computers that featured voice output were used by two projects (Project CLASS and Salish Kootenai ACCESS). Two projects (Project Access and Salish Kootenai ACCESS) used adapted computer technology for students whose disabilities were such that this equipment was necessary.

Participants in two projects (Comprehensive Learning Program and Remedial Mathematics) relied less heavily on computers in their daily activities. Although computers were available in Comprehensive Learning Program, most of the tutors, who were older adults, were not trained in using them and were not comfortable with them. The project director noted that among the computer programs used, those with voice synthesizer worked well.

One of the original components of Remedial Mathematics was to develop and purchase instructional software. Project staff first conducted a search of existing software and were unable to identify any programs that met their needs. Staff then attempted to write their own software, but found that such an undertaking had limitations. Students in the project used personal computers, but not on a regular basis.

Computer-Assisted Instruction

Four projects (Educational Center for Disabled Students, Project OVERS/IMPACT, Project STRIDE, and Vocational Access) used computer-assisted instruction programs. Educational Center for Disabled Students used commercially available computer-assisted instruction programs in several different content areas. According to the project director, most of the students in the project had not been mainstreamed in high school, and consequently lacked basic knowledge in some areas. Computer programs were available in the areas of world history, science, and math for those students who lacked a solid background in these areas. Educational Center for Disabled Students also used a software program that assisted students to develop skills in writing outlines and research papers.

Project OVERS/IMPACT bought commercial programs for use in particular fields (for example, an anatomy program for nursing students). Project STRIDE used a computer-assisted career assessment program to screen and filter students into appropriate work stations. Vocational Access made instructional software in remedial areas available to project participants, but the project director reported that students lacked time in which to use it.

The use of technology in educational settings is expanding, and postsecondary students with disabilities are among the groups that may reap great benefits from advances in this area. In addition to computers and other types of technology, postsecondary students with disabilities may benefit from the academic support services that were described in this chapter under the categories of 504/ADA services, tutorial services, and study skills instruction. Postsecondary students with disabilities who receive these services are more likely to be successful in their academic classes, and they also are familiarizing themselves with the types of aids and services that will help them to thrive in future jobs and careers.

CHAPTER 5.
SUMMER TRANSITION TO COLLEGE PROGRAMS: Strategies for Educating Students with Disabilities

Many newly enrolled postsecondary students, both with and without disabilities, become saturated with, and overwhelmed by, the vast amount of information presented to them at the beginning of the academic year. Some institutions have addressed this problem by expanding the period of transition, and offering transition programs during the summer prior to the students' matriculation. Summer transition programs for students with disabilities are designed to help students overcome some of the obstacles they may face during their post-high school, pre-college period by providing practice in using college level learning skills and facilitating social interaction with a limited group of peers prior to the beginning of the actual college year. Although students with disabilities in particular may benefit from self-awareness training and guidance on how to be effective self-advocates, *all* students may find these and other services offered by summer transition programs useful.

Summer programs for students with disabilities generally provide opportunities for students to grow academically, socially, and personally by offering an array of activities and experiences. Before the full college year begins, students are provided with a "safe environment" in which to experience the general feel of college life, develop friendships, and acquaint themselves with resources that will help them make the most out of their education. Summer transition programs are usually available to high school juniors or seniors who are considering college admission as well as to those students recently accepted into college. Programs are designed to provide students with an overview of college life, so that they can determine whether, or reaffirm that, college is the right choice for them.

Disability support service providers as well as students may benefit from summer transition programs. In cases where students enrolled in the summer programs are already planning to attend the host institution the following fall, disability support service providers have the opportunity to meet and identify the needs of some of the students they will be serving, before the full student body returns. In cases where students do *not* end up attending the institution that is hosting the summer program, disability support service providers also benefit from the general experience of working with students outside of the regular school year.

Summer transition programs range in length from three days to seven weeks. Regardless of length, most summer programs for students with disabilities are far more thorough than regular orientation programs, which often cover general material such as information about

registration. However, summer transition programs are generally *not* intended to be substitutes for regular orientation programs.

Participation in summer transition programs is usually voluntary. Some programs are limited only to those who will attend the host institution. Others are not, but tend to draw most heavily from those who plan to attend the institution. Most programs are residential – students live and eat in residence halls. However, non-residential summer transition programs designed for commuter students do exist.

Summer transition to college programs were featured by three projects (LD Consortium, Project CLASS, and Project ASSIST) identified as successful by the Advisory Panel of the *Successful Practices* study. HEATH staff found that each of these three projects used at least some of the following strategies: *training in self-advocacy skills, instruction in study skills, instruction in time management, learning strategies training, orientation to disability support services* (information on how to access services and request accommodations), *training in the use of auxiliary aids, group discussions, orientation to campus services, additional diagnostic evaluation as needed,* and *classes*. All three of these projects exclusively targeted students with learning disabilities; however, many summer transition programs for students with other types of disabilities do exist. The strategies used by the three projects described in this chapter are not the only ones that may be used in summer transition to college programs. Figure 3 outlines the strategies discussed in this chapter.

FIGURE 3:

SUMMER TRANSITION TO COLLEGE PROGRAMS:
Strategies for Educating Students with Disabilities

- training in self advocacy skills
- instruction in study skills
- instruction in time management
- learning strategies training
- orientation to disability support services
- training in the use of auxiliary aids
- group discussions
- orientation to campus services
- additional diagnostic evaluation
- classes

EXAMPLES OF SUMMER TRANSITION TO COLLEGE PROGRAMS

In each of the three projects identified as successful that featured summer transition programs, the impetus for including this component came from the project director. In one case (LD Consortium), the decision to include a summer transition program grew out of two divergent realizations on the part of the project staff. The first was that many students with learning disabilities decided not to attend college because they did not think it was a suitable choice for them. The second reason was that out of those students who *did* enter college, very few of them had undergone a transition period. A project director of a different project (Project CLASS), through past experiences, had come to value the overall benefits of summer programs, and refers to this component of his project as "a marvelous morale raiser and unifier for students, as well as a motivator for staff." In the third project (Project ASSIST), the summer transition program was not part of the original proposal, but was added by staff as they became aware of the adjustment difficulties many students faced and the subsequent need for some type of structured transition experience.

Project CLASS, New York University

A six-week summer transition program was one component of Project CLASS, a holistic, in-depth program that addressed the academic, self-concept, and career needs of undergraduate NYU students with learning disabilities. This summer program was designed to prepare students, who were planning to attend NYU, for the college experience by helping them feel comfortable with their academic and self-advocacy skills. The main focus was on *learning strategy training*, specifically, how to use self-monitoring skills and by-pass techniques, as opposed to remediating basic skills. Students received *training in the use of auxiliary aids* such as textbooks on audiocassette from Recording for the Blind, word processors, spell checks, and talking texts. These types of auxiliary aids are examples of by-pass techniques. Project CLASS also featured *instruction in study skills, instruction in time management*, and *orientation to disability support services* at NYU.

Group discussions were an important part of Project CLASS' summer transition program. Participants met in groups to discuss the goals and purposes of a college education, explore individual problems, and brainstorm on methods of problem solving. Students who participated in the summer transition program also participated in the regular NYU orientation.

Project ASSIST, University of Wisconsin - Whitewater

Project ASSIST was a comprehensive program serving college students with learning disabilities, with the goal of increasing the likelihood that these students complete their college degree and become gainfully employed. One component of the project was a summer transition program for graduating high school students who were entering the university in the fall. A student advisory board, which was an integral part of Project ASSIST, provided guidance on how to structure the summer transition program. The five-week program featured *training in self-advocacy skills, instruction in study skills*, and *instruction in time management*. Role plays were used to help students become better self advocates. Project ASSIST's summer program also featured *orientation to campus services* and *additional diagnostic evaluation as needed*.

Students attended the program full-time, five days per week, and lived and ate in residence halls. Although the program was not mandatory, all incoming freshmen with learning disabilities were encouraged to attend. In the first year, 24 students participated; in the second year, 25 students participated. Summer program staff members included graduate students who had certification in teacher education and were seeking special education certification.

After the federal funding ended, many of the support activities offered by Project ASSIST were continued, but funding for the summer transition program was cut. According to the project director, the new group of freshmen had more difficulty with the transition without this pre-college experience.

LD Consortium, Central Piedmont Community College (NC)

The overall focus of LD Consortium was to develop and implement a model of service delivery to identify and help students with learning disabilities before they left high school, to assist them in appropriate program and course placement at the three institutions of higher education participating in the project, or at a college of their choice, and to provide support services to them at these institutions. Thus, transition issues were central to the project's mission.

A three-day residential summer transition program for students who were entering college in the fall, entitled SELF (Students' Exploration of Learning and their Future), was one of the services offered by LD Consortium. Approximately 20 students attended the program each of the two years it was offered. The program was coordinated by three members of the project staff, as well as six peer mentors who were undergraduate students at the University of North Carolina - Charlotte, one of the participating institutions. Enrollment was not limited to those who planned to enter one of the three participating schools. Priority was given to students who lived in the area surrounding the three schools.

Activities included *instruction in study skills, instruction in time management, orientation to disability support services,* and *orientation to campus services. Training in self-advocacy skills* was offered, with the goal of helping students become more aware of their learning styles and needs. Students also took *classes* in word processing and computer skills. According to the project director, the program offered a "taste of college in a structured, supportive environment, as well as an introduction to services." Students who participated in SELF were not required to participate in the regular orientation program.

PERCEIVED SUCCESSES

Students participating in summer transition programs benefited from the positive social interactions they developed with other participants, according to project directors. Also, project directors agreed that the experiences raised participants' awareness of what to expect in

a college or university setting. The project director of the LD Consortium reported that if she were to change anything about the summer program, she would target younger, middle school-aged students.

The director of Project CLASS observed that students found the orientation to NYU and the introduction to support services on campus a helpful first step in negotiating the University. Students made use of the by-pass mechanisms they learned, especially the word processing. One hundred percent of the students who attended the summer program went on to enroll in NYU. These students, many of whom were required to obtain dean's waivers in order to be admitted into NYU, proved they could succeed in a competitive school.

According to the director of Project ASSIST, the summer transition program provided tremendous benefits to participating students. During the first semester, the grade point averages of students who had gone through the program were higher than those of students who had not. Participants also seemed to feel generally more comfortable in the college setting. The project director also mentioned that the students bonded with one another. They entered the fall semester with a circle of friends and maintained contact with each other even after leaving the program.

Summer transition to college programs for students with disabilities are becoming increasingly popular on campuses across the country. These programs serve as bridges for students as they leave the relative comfort of their high school life behind and enter the unexplored world of postsecondary education. Students who participate in summer programs learn some of the social and academic skills that will help them navigate, with increased confidence, obstacles they may encounter during their freshman year and beyond.

CHAPTER 6.
CAREER DEVELOPMENT: Strategies for Educating Students with Disabilities

The purpose of any type of postsecondary education, whether the setting is a two- or four-year college, vocational-technical school, or transitional program, is to prepare students to be active and productive members of society. Postsecondary students, including those with disabilities, become increasingly concerned with their post-school future as they progress through successive phases of their academic program. While the process of identifying and pursuing a career is accelerated during this time, it actually begins even before students enter into postsecondary education. According to leading career development theorists, a career is a unique, dynamic entity that unfolds throughout a person's lifetime; thus, many career-related decisions are made before, as well as during, one's working years.

Numerous factors influence an individual's ability to make such decisions. One definition of career development is, "the total combination of psychological, sociological, education, physical, economic and chance factors that influence the nature and significance of work during the lifespan of any given individual."[1] Staff at postsecondary career development programs, including those programs targeted at students with disabilities, must consider ways in which these various factors influence the students they serve as they assist these students to identify a career and develop skills appropriate for that career. Because these cumulative factors influence each individual differently, an essential element of successful career development programs is a student-centered approach -- each person, regardless of ability or disability, is viewed as an individual.

An important factor that distinguishes individuals with disabilities from those without disabilities in the area of career development is that individuals with disabilities generally have fewer opportunities to explore areas of interest and form plans for career development than do their peers without disabilities. Consequently, postsecondary students with disabilities are often less aware than their peers without disabilities of the many career options available, and

[1] Herr, E.L. and Cramer, S.H. Career Guidance and Counseling Through the Lifespan. Boston: Little Brown & Co. 1984.

are often at different levels of readiness from these peers. Directors of successful career development programs for postsecondary students with disabilities acknowledge that this gap may already exist for the students they serve, and will very likely continue to exist. Accordingly, they incorporate into their project designs a heavy emphasis on exposing students to the world of work through a range of off-site as well as classroom activities. Such activities provide students with opportunities to explore interests, gain knowledge about skills necessary for many occupations, and examine the impact of their disability on their occupational choices.

Successful career development programs for students with disabilities are also based on the premise that students are not solely being prepared for a job, but rather are developing broad competencies that will enable them to make complex decisions as they traverse the career development continuum throughout their life. These competencies include, but are not limited to, decision-making skills, job seeking skills such as resume preparation and effective interviewing, and self-assessment and self-presentation skills. Successful career development programs offer students assistance in developing these skills.

Strategies related to career development were implemented by nine projects identified as successful by the Advisory Panel of the *Successful Practices* study. In each case, project directors recognized the importance of the factors highlighted above and incorporated them into a philosophy that included one or more of the strategies discussed in this chapter. The nine projects that used career development strategies are:

1. Project SMILE, Life Development Institute (AZ).
2. Computer Assisted Design for the Disabled (CADD), Valencia Community College (FL).
3. Center for Assessment and Training of the Handicapped (CAT), Valencia Community College (FL).
4. Project CAREER, New York University.
5. Project CLASS, New York University.
6. Using Job Clubs to Assist in the Transition to Work, Ohio State University. Hereafter referred to as Job Clubs.
7. Vocational Access Project, Linn-Benton Community College (OR).
8. Project STRIDE, Pennsylvania State University and Altoona Area Vocational Technical School (PA).
9. A Demonstration Project for Teaching Entry-level Job Skills to Youth with Mild and Moderate Disabilities by Employing Co-workers as Trainers, Utah State University. Hereafter referred to as Co-workers as Trainers.

Based on project directors' descriptions of their projects' use of career development strategies, HEATH staff divided these strategies into four categories: **Linkages, Career Services, Work Experience, and Student Support Services**. Through establishing linkages with on- and off-campus entities, career development program staff can generate community support for their programs; activities in this area are discussed in the **Linkages** section. The strategies described in the **Career Services** section include activities that provided students in funded projects with opportunities for self-discovery as well as hands on-training. These activities enhanced students' overall career growth and also helped them to benefit as much as possible from their project-related work experience. The different types of work experience offered to students in funded projects are described in the **Work Experience** section. The **Student Support Services** section describes services such as tutors, counseling, job clubs, skills classes, and technology.

Figure 4 outlines the strategies that are discussed in this chapter. As is evident in the descriptions of these strategies, a project may have primarily used one of the strategies or incorporated several of them. The strategies listed here and described in this chapter are those used by one or more of the projects that were identified as successful by the *Successful Practices* study. They are not the only strategies that could be used to enhance the career development of postsecondary students with disabilities.

FIGURE 4:

CAREER DEVELOPMENT:
Strategies for Educating Students with Disabilities

Linkages
- Intra and Interagency Collaboration
- Outreach to Business and Industry
- Advisory Boards

Career Services
- Career Assessment
- Vocational Training

Work Experience
- Internships
- Cooperative Education Placements
- Utilizing Co-workers as Trainers
- Job Placements with Follow-up

Student Support Services
- Tutors
- Counseling
- Job Clubs
- Skills Classes
- Technology

LINKAGES

The career development needs of postsecondary students with disabilities are best met when appropriate members of the campus and surrounding community are attuned to the experiences of this population and willing to offer any possible assistance. An array of on- and off-campus entities can offer valuable support to career development projects, and the success of projects depends largely upon the extent to which project staff capitalize on these resources. At the campus level, projects benefit from cooperative planning and programming between those with expertise in disability-related issues, such as staff at the Office of Disability Support Services, and those with expertise in career development, such as staff at the Career Counseling/Development Office or Career Center. Public schools and Vocational Rehabilitation agencies, two off-campus entities with which most students with disabilities have had contact, are potential sources of support as well. Specifically, public schools can assist project staff by providing referrals, and Vocational Rehabilitation agencies may provide funding, adaptive equipment, and assessment. Local businesses naturally have a great deal to contribute to career development programs, as they comprise sites of many of the jobs for which project participants are being prepared. All nine projects that used career development strategies established *linkages*, or collaborative relationships, with such on- and off- campus entities. These linkages were established through intra and interagency collaboration, outreach to business and industry, and advisory boards.

Intra and Interagency Collaboration

Collaboration can occur between and among individuals from different departments within one agency (intraagency) or between and among individuals from different agencies (interagency). Effective intra and interagency collaboration occurs when all participants are receiving benefits as well as providing services. Six projects (Project CLASS, Project CAREER, CAT, Project SMILE, Vocational Access, and Co-workers as Trainers) engaged in intra or interagency collaborations. According to directors of these projects, the main factors that contributed to the success of these collaborations were the existence of a previous history or working relationship and the establishment of collaboration as a priority, due to a valuing of diverse perspectives and opinions.

Staff at three of the six projects (Project CLASS, Project CAREER, and CAT) engaged in intraagency collaboration -- collaboration with other offices at the host institution. Project

CAREER and Project CLASS were both based at NYU and had the same project director. While Project CLASS had a strong career development component, career development was the sole focus of Project CAREER, which had sites at a two-year college and a technical school, as well as NYU. The director of Project CAREER and Project CLASS said that he collaborated with administrators and faculty at the three project locations of the two projects for two primary reasons: 1) to increase faculty awareness of, and sensitivity to, students with disabilities and 2) to generate referrals to the projects. He felt the projects' efforts were successful because he made intraagency collaboration a priority and he had a previous positive working relationship with members of the administration at each of the three locations.

The project director of CAT strongly believed in the importance of tapping into campus resources that could enhance the success of her career development project. Due to this belief, she too made collaboration a priority and put forth the effort necessary to transform ties that already existed with staff of the Career and Cooperative Education Placement Centers into close working relationships.

Staff at three projects (Project SMILE, Vocational Access, and Co-workers as Trainers) engaged in interagency collaboration with Vocational Rehabilitation agencies, local schools, and community-based organizations. Project SMILE and Vocational Access staff collaborated with Vocational Rehabilitation agencies. Directors of both projects said that previous histories and positive working relationships provided a solid foundation for continued collaborative efforts. The Vocational Rehabilitation agency became aware of the high quality services provided by Life Development Institute, the site of Project SMILE, through previous contracts with the Institute and was therefore inclined to approach another collaboration with a positive attitude. Project SMILE's funds for initial training and nine months of residential costs were provided by Vocational Rehabilitation. Participants in Vocational Access received funding from Vocational Rehabilitation for transportation, living costs, and tools or other materials needed in vocational/technical classes.

Staff at Project SMILE and Vocational Access established interagency collaborative relationships with other agencies and individuals in addition to Vocational Rehabilitation. In the case of Project SMILE, staff of the Life Development Institute used their contacts with local high school counselors and staff at foster care youth programs to recruit project participants. Since Project SMILE's previous collaborations with these entities and individuals were positive, the process of obtaining referrals was smooth.

In addition to drawing upon past working relationships with Vocational Rehabilitation staff and high school counselors, the director of Project SMILE also sought to spread the word

about his project to those he did not already know, but who might be interested in collaborating. He accomplished this through developing a video about the project and conducting tours through the project site.

A cornerstone of Vocational Access was the collaborative relationship between the community college where students received training and Work Unlimited, the community-based job placement agency where the job placement logistics were coordinated. The project director reported that this collaborative relationship was especially smooth since Work Unlimited is a subsidiary of Teaching Research, and Teaching Research was one of the partners in the project.

Directors of all projects that engaged in either intraagency or interagency collaboration shared a belief in the benefits of involving a range of individuals on behalf of project participants. Team meetings, which were held for participants in Vocational Access and Co-workers as Trainers, were one forum for involving the many different individuals interested in the student's education. During these meetings, the participant's progress was discussed, and individualized transition and service plans were written. Through the collaboration that took place during these meetings, team members received validation of the importance of their roles in the student's career development. For example, in the case of Vocational Access, Vocational Rehabilitation counselors were invited and encouraged to attend the student's initial planning and exit meetings. Such participation increased the likelihood that the counselor felt like an active member of the team, in addition to being a representative of the funding source.

Outreach to Business and Industry

The relationship between career development project staff and employees at local businesses and industries is ideally a mutually beneficial one. Although the ADA is now in effect, ignorance and prejudice still exist in many business environments. Through conducting outreach activities with local businesses and industries, career development project staff can provide information to employers on the ADA and inform them about the existence of students with disabilities as an important, yet underutilized, source of labor. Project staff can also obtain information from businesses about the types of skills and attitudes they look for in their employees, and relay this information to project participants.

All nine projects developed linkages with the community through conducting outreach activities with local businesses and industries, ranging from informal networking to the convening of meetings. The outreach activities considered most effective by the majority of project directors were seminars and workshops that provided information on the ADA and

reasonable accommodations. All project directors emphasized the importance of establishing outreach to business and industry as a priority. Their reasons for conducting outreach activities were: 1) to confirm that training that was being provided through their projects was current and relevant, 2) to obtain sites for internships or job placements, and 3) to advocate for the hiring of persons with disabilities to ensure that students obtained employment upon project completion.

The project director of CAT reached out to area employers by speaking with them personally about hiring practices and reasonable accommodations for individuals with disabilities. As these relationships evolved, project staff began to work with employers in an effort to determine the essential functions of different jobs and identify accommodations that would enable persons with disabilities to perform them. The project director identified this thorough evaluation of jobs as one of the innovative aspects of CAT.

The director of Project CAREER said that he and his staff developed a rapport with local businesses through conducting outreach activities. The cohesiveness of the community was enhanced through these activities, a factor that in turn influenced the success of the internship component.

Advisory Boards

Advisory boards are convened by organizations or projects for a variety of reasons and may serve a number of different purposes. Advisory boards used by the projects described in this chapter were convened to provide insight and information that guided project staff in various areas related to the development and operation of their projects. Business representatives were included on the advisory boards of many projects. Such individuals provided critical information on a range of topics, from elements to include in a relevant computer training program to what sells a manager on a particular job candidate in an interview. Also, such board members often provided internship sites, cooperative education placement sites, or permanent employment opportunities at their businesses.

Six projects (Project SMILE, Project STRIDE, Co-workers as Trainers, Job Clubs, CAT, and CADD) created advisory boards, and all six boards were comprised, at least in part, of business representatives from small companies as well as large corporations. Representatives from these companies were usually technical and human resources personnel. Many advisory boards also had representatives from community agencies, such as Vocational Rehabilitation, social services, and associations of and for individuals with differing disabilities. One project (Project STRIDE) originally convened two separate advisory boards, one comprised of

community and service organizations and the other comprised of employers representing occupations students would most likely enter into. These two boards were eventually merged into a single board.

The project directors of CAT and CADD both said they made the establishment of an effective advisory board a high priority. Each project director included business representatives on the project's advisory board in order to obtain information to incorporate into the project's design. The project director of CADD said the business advisory council performed other essential functions as well, such as ensuring that the curriculum used by the project was current and helping to establish other business contacts for internship sites. The project director of Co-workers as Trainers said the project primarily used the board as a means of keeping in touch with the business community.

The average number of formal meetings per year of advisory boards of the six projects was four. Some boards met more frequently while others convened less often. The project director of CADD said that while the project's board met formally on a monthly basis, six separate subcommittees were formed and met to discuss specific issues on an as-needed basis. The project director of Co-workers as Trainers said that although the project's advisory board met formally only twice per year, project staff met informally with members as often as was needed.

Project directors felt that establishing personal contact was an effective way to recruit individuals to serve on advisory boards. Three project directors (Project STRIDE, CADD, and CAT) said that the process of establishing contact was facilitated by the fact that project staff had previously worked with the individuals or the businesses they represented. In two cases (CADD and CAT), the working relationships had been established through previous grants. CADD also hosted recruitment dinners where current business advisory council members were asked to bring a new person and information on the project was presented.

The project director of Co-workers as Trainers said that her project did not have a past history with any of the advisory board members and in fact, the staff member who made the personal contacts with potential board members was new to the area. In conducting outreach activities, this staff member focused on cultivating personal relationships. She arranged to meet business persons for an information acquisition interview, during which she showed an interest in their business and described the project. She then identified potential board members based on their level of interest in the project.

Project directors had many suggestions regarding the use of advisory boards. The project director of CADD encouraged projects that use advisory boards to involve board

members in all aspects of the project. The project director of CAT also felt it was important to constantly involve board members in the project through committee work and involvement with students. She advised others not to pull together an advisory board without first creating a mission for it.

Project STRIDE administered a survey to its advisory board, the results of which helped the coordinator to target discussion at the board's work sessions on specific job skills identified as important by the employers. The project director felt that administering the survey constituted a good use of the advisory board. The project director of Co-workers as Trainers suggested that if advisory board members have concerns about establishing formal written contracts or agreements (related to commitment, responsibilities, etc.), then it is prudent not to force such agreements. She cautioned against turning potential cooperative relationships into adversarial ones.

CAREER SERVICES

Local businesses and industries with which career development program staff establish linkages sometimes serve as host sites for participants during their project-related work experience. In order for students to get the most out of the work experience, they must first go through a process of identifying their interests and skills, and matching these interests and skills to an appropriate career path. This process is particularly important for students with disabilities, as individuals with disabilities generally lack the same opportunities to explore their career interests and develop commensurate skills as do individuals without disabilities. Postsecondary career development projects for students with disabilities can guide students through this process by providing them with on- or off-site career services. The career services provided by projects identified as successful by the Advisory Panel fall under two categories -- 1) career assessment activities and 2) career/technical training. In projects identified as successful, students first identified areas of interest through various assessment activities, then they received career/technical training in these areas.

Career Assessment

The basic purpose of career assessment is to assist individuals to identify career or vocational interests and goals. Information from the career assessment provides constructive feedback about an individual's career interests, abilities, preferred learning style, and potential.

Although there is a lack of consensus among professionals about how extensive and complete the assessment should be, the basic components of a career assessment most often include: interview and behavioral observation of the student; work samples including "hands-on" activities using the same materials, tools, and tasks found in the real work setting; psychometric tests measuring an individual's aptitude, interest, dexterity, and academic achievement; interest inventories; and, situational assessment that simulates the actual work conditions to assess work behaviors. As a result of these activities, students' self-knowledge and awareness of career options is enhanced, which in turn helps make the connection between succeeding in their classes and succeeding in their careers more clear to them.

Seven projects (Project SMILE, Project STRIDE, CAT, CADD, Co-workers as Trainers, Job Clubs, and Project CAREER) placed a heavy emphasis on career assessment prior to placing students into training programs, cooperative education placements, internships, and job placements. In most of these projects, assessment activities centered largely around interviews with participants and tests that measured interests and aptitudes. The time frame for administering such tests ranged anywhere from two to 20 hours.

The seven projects that featured career assessment administered a variety of different assessment instruments to project participants, ranging from well-known standardized tests to instruments created by project staff specifically to meet the needs of the project. The WAIS and Woodcock Johnson (Co-workers as Trainers) and the Strong-Campbell Interest Inventory (Project CAREER) were three standard instruments used by projects. Other instruments were the ASSET (Assessment of Skills for Successful Entry and Transfer Test), which assessed reading and math skills, and the Flanagan, which assessed perceptual, spatial, and conceptual abilities (CADD).

Three projects (Project STRIDE, Project SMILE, and CAT) used computer-guided assessment instruments. Project STRIDE participants used a self-guided computer program that enabled them to identify three initial areas of career interest. Project SMILE used the OASYS (Occupational Access System Matching Peoples' Abilities to Employer' Needs), a computer-aided system that matches a person's skills and abilities to the employer's job demands. Project SMILE also used ARTICOM, a computerized vocational and career guidance system that assesses an individual's aptitudes, vocational interests, and job related language and mathematical skills.

Two projects developed their own assessment instruments. Job Clubs developed "Your Job Club Knowledge Assessment," which assessed participants' awareness of, and knowledge

about, various aspects of the job search process. Project CAREER developed two tools -- a by-pass skills rating scale and an instrument that assessed interpersonal functioning.

Students in Project STRIDE and Project SMILE participated in hands-on activities as part of their career assessment. Project STRIDE participants completed hands-on evaluations at work stations in the three potential areas of interest that had been identified through the computer program. The results of these evaluations, along with the students' interests, determined in which occupational training programs students participated. In Project SMILE, the assessment process included activities in which participants used the yellow pages as well as other sources to identify companies with which they wished to have informational interviews.

Career assessment activities in Project CAREER and Co-workers as Trainers extended beyond the pre-training phase. The director of Project CAREER said that after students were placed in internships, they continued to be assessed through observations and through the use of a checklist (the checklist is described in detail in the section on *internships*). In Co-workers as Trainers, students who were placed in jobs continued to be assessed through performance measures such as task analyses and co-worker evaluations.

Project staff used assessment information for a number of different purposes. Most project directors said that assessment information collected through tests was ultimately used to individualize the assistance provided. Two project directors (Co-workers as Trainers and CAT) said that assessment information was used to appropriately match participants to jobs. The project director of CADD said that assessment information was used for two reasons: 1) to determine whether potential participants were committed enough to the project to give up other obligations in order to complete the required one year of training and 2) to determine whether remediation was necessary prior to intensive training. In Project STRIDE, results of students' performance at the work stations were used to determine placement into appropriate classes. The project director of Co-workers as Trainers said that assessment information collected after students were on jobs was used to monitor improvements and/or problems in job performance.

Vocational Training

Vocational training includes coursework, with a strong emphasis on hands-on activities, designed to prepare students for employment a chosen area. Training is most effective when it occurs after students' interests, skills, and aptitudes have been identified through career

assessment and exploration activities, as career development project staff can then be confident that students have made *informed* choices in their selection of classes. Students are more likely to succeed in classes that are in areas in which they have expressed an interest and/or demonstrated aptitude, even if they find these classes difficult.

Four projects (Vocational Access, Project STRIDE, CADD, and Project SMILE) offered vocational training. Vocational Access participants initially had the opportunity to enroll in community college vocational classes in one of five areas: horticulture, nursing assistant, culinary arts, automotive technology, and animal science. Project staff had selected these areas for the following three reasons: 1) staff felt that students could complete a portion of the curriculum; 2) students could gain enough entry level skills for employment in these areas; and, 3) local employment possibilities existed in these areas. However, after discovering during the first year that students were interested in vocational fields outside of those which were targeted, project staff expanded the areas offered to accommodate the students' interests. Additional fields that were later added included accounting, adult care, athletic management, child care, computer technology, and physical therapy. During an initial planning meeting with project staff, students selected a vocational area and an education plan was developed. Students were often accompanied at these meetings by a parent, vocational rehabilitation counselor, high school teacher, college counselor, or other support person.

Vocational Access participants enjoyed the training so much that project staff extended the duration of this component. The initial plan stipulated that students would take a maximum of three terms of classes. However, at the end of the first year, many students expressed a desire to continue in their vocational programs. The vocational instructors indicated that they also wished the students to continue and the original plan was therefore modified to allow the students to expand their training. Students who completed a vocational program were awarded a certificate in their vocational area.

As part of its vocational training component, Project STRIDE gave students the option of enrolling in either an adult program or an intergenerational program offered at Altoona Area Vocational Technical School. In the intergenerational program, project participants, who consisted of older students as well as recent high school graduates, were placed in classes with secondary students. The adult program was comprised entirely of adult students. The majority of the project participants chose the intergenerational placement option. The project director noted that some of the older adults in the intergenerational classes acted as role models to the secondary students, and that this experience enhanced the adults' self esteem. The project director of Project STRIDE mentioned that staff addressed the issue of gender equity in

career training by encouraging female students to participate in non-traditional fields. These efforts were enhanced by those of Altoona Area Vocational Technical School staff who already were working to encourage women to enter traditionally male-dominated fields.

CADD featured a training course designed by the CADD instructor under the direction of the business advisory council curriculum committee. The training course was an 11-month program, comprised of an intensive eight-month training component conducted in a classroom that simulated a business, followed by a three-month non-paid internship. Classroom training activities included: direct instruction, hands-on computer-assisted design work, guest lectures, class assignments, homework, tests, and field trips. Instructors for the program were selected based on their experience in industry and their knowledge of the practical applications of computer-assisted design. Semi-annual reviews and revisions took place to ensure that the training was responsive to the needs of the computer industry.

Participants of Project SMILE selected a vocational training program from more than 13 areas, such as auto body repair and paint, business and office specialization skills, cashier sales, health occupations, mechanical maintenance, and printing. While some students received training at Gateway Community College, the majority were trained at the Maricopa Skills Center, a division of the College.

WORK EXPERIENCE

After students complete their career assessment and/or vocational training, they are ready to experience first hand the roles and responsibilities associated with different careers. Work experience benefits students with disabilities in many ways. Students may assess the impact of their disabilities in different work environments and determine the reasonable accommodations they need (if any) to perform various job duties. Through work experience, students are also provided with opportunities to verify areas of interest and/or aptitude. And, students learn about different aspects of being a good employee. Projects identified as successful in this study that used career development strategies provided students with work experience through internships, cooperative education placements, utilizing co-workers as trainers, and job placements with follow-up.

Internships

Internships are one type of work experience that expose individuals to different job settings and career options. At the postsecondary level, internships vary in length from approximately three months to one year, and it may therefore be possible (and beneficial) for a student to complete several different internships throughout his or her postsecondary education. In addition to introducing students to the broad concept of what it means to work, internships can be an effective way for students to enter a business. In some instances, an employer may wish to provide a person with a disability with an opportunity to work, but be unable to do so due to a lack of openings for paid positions. Since internships are usually non-paid positions, such an employer may be interested in becoming a host site for interns. On the other hand, if the business' practice is to pay interns, then all interns -- including those with disabilities -- are paid.

Three projects (CADD, Project CAREER, and Project CLASS,) placed participants in internships. CADD's internships were full time (40 hours per week) for three months, and were non-paid. The internships were considered part of the educational experience and students received grades for them. While internship sites varied, project staff targeted any company that had positions with occupational codes that fell within the program's training areas. Internships for participants of Project CAREER and Project CLASS lasted approximately one year and were non-paid. Internship sites varied and were selected to match students' interests, learning styles, and career goals. Some Project CAREER participants received academic credit for internships.

In two of the projects (Project CAREER and CADD), project staff developed the internships through collaborating with on- and off-campus individuals. In Project CAREER, the project director and staff worked closely with the career services office at each of the three project locations. In CADD, the business advisory council internship/placement committee assisted project staff in locating companies wishing to participate as host sites. During the last two weeks of classroom training, CADD participants interviewed with several of these companies to determine internship placement.

Project directors of all three projects that used internships felt that the monitoring of students' progress and the provision of support on an as-needed basis was critical to the success of the internship experience. The project director and staff of Project CAREER developed a checklist for students and supervisors that allowed the students to monitor themselves in career and motivational areas while they participated in the internships. The

checklist had the following categories: how I handle responsibilities (behavior, attire, promptness), how I do my work (accuracy, timeliness, ability to work individually, ability to stay on task, ability to learn new tasks), how I communicate while at work (ability to follow written and oral instructions, willingness to ask questions of supervisor and co-workers, ability to accept constructive criticism), and affective/how I feel about work (helpfulness of supervisor, capacity for self-improvement). The checklist also included two summary categories with questions that addressed general behavioral and affective issues associated with learning disabilities.

Project CLASS staff monitored students' progress during meetings of an internship support group that was established to provide students with an opportunity to discuss issues related to any aspect of working. CADD staff monitored students through on-site visits, telephone reports, and supervisor evaluations. In addition to assessing interns' performances, the host companies were asked to assess the content of the training provided by CADD. This input helped ensure that the program training was responsive to the needs of businesses.

Cooperative Education Placements

Cooperative education is a program, national in scope, that developed in the early 20th century as part of a movement to create experience-based education. Cooperative education placements (co-ops) provide high school as well as college students with the opportunity to combine academic study with paid, monitored and credit bearing work. Students gain hands-on experience in real work settings and learn general skills necessary to succeed in any profession, while they also receive relevant education and training. Co-op programs usually last one year or less, and are concentrated in the vocational areas of marketing, trade and industry, and business.

Two of the projects (Project STRIDE and CAT) identified as successful by the Advisory Board adapted the co-op model for students with disabilities, and placed participants in co-ops. The main purpose of the co-op placements CAT offered was to provide students with work experience, since most of them lacked prior experience. Therefore, while in some cases co-ops led to a full time job, the goal of this component was to provide students with work experience. CAT project staff worked with the campus Cooperative Education Placement Office to place 24 students in co-ops; prior to this, no students with disabilities had been placed. Students were placed in technical positions, often in businesses of advisory board members. They generally worked 10-20 hours per week. The project director felt that the co-

ops were eye-opening experiences for the students. She said that through the co-ops, students developed an understanding of the difference between what is required in an educational setting and what is expected in real-life work environments, and were thus better able to match their training to their future goals.

While Project STRIDE also featured co-ops, the staff found that many of the project participants benefited more from extra classroom work than from the work experience. Therefore, only a small number of students -- one in the first year and four in the second year -- were placed. Co-op sites included a beauty shop and amusement park, and the average length of the placements was two to three months. The project director felt that a problem with this aspect of the project was that the one year program did not provide students with sufficient time to complete both the classroom-based training that preceded the co-op placement and the placement itself. The project director speculated that if the duration of the program was extended to provide students with additional classroom time prior to participation in co-ops, students would experience greater success during the placements.

Utilizing Co-workers as Trainers

Co-workers are a valuable source of information and support for new employees as they adjust to their work environment and the responsibilities of their job. One of the projects identified as successful by the Advisory Panel (Co-workers as Trainers) built on this idea, formalizing it into a strategy whereby co-workers were selected and paid to be trainers of employees with disabilities.

The project director of Co-workers as Trainers said that project participants had recently completed or dropped out of secondary education, and were in the "revolving door syndrome." They were not benefiting from traditional vocational rehabilitation and supported employment approaches. The Co-workers as Trainers project was based on the premise that such students would experience success in the world of work through an entirely new approach -- by being trained by co-workers. Prior to placing any students on job sites, Co-workers as Trainers project staff assessed students in areas such as skills, interests, educational or work history, and self-esteem. Information acquired during the assessment process was incorporated into individualized transition plans. Staff identified businesses to serve as potential host sites, provided business managers with information about the co-worker transition model, and determined their willingness to participate. Students were matched to jobs after staff collected

assessment information on the students, determined which businesses were willing to participate, and identified appropriate jobs within these businesses.

Co-worker trainers were selected from the pool of a company's current employees on the basis of meeting the following criteria: they worked the same shift for an ongoing period of time, were highly rated by a supervisor, were well liked by fellow workers, and were willing to participate in the training. Co-workers participated in a two-hour training session in which they read a training manual, watched a video tape that demonstrates and describes the teaching sequence, and discussed general learning difficulties that might arise with project participants. Managers or supervisors were encouraged, but not required, to participate in the training, which was conducted at the project office.

The foundation of the co-worker training strategy was a "tell, show, watch, coach" teaching sequence. Co-workers were taught to simplify their instructions and explain tasks one step at a time (to use a script if necessary), show the new employee how to do each step, ask the new employee to do it, watch, and give feedback on the performance. The project's transition specialist monitored and provided suggestions to co-workers at their job sites as they trained the new employee. Co-workers were paid $20.00 for their initial training as well as an additional $2.00/hour for providing 80 hours of training and monitoring time.

Job Placements with Follow-up

The process of looking for a job is rarely an easy one, and students with disabilities may require more assistance than their non-disabled peers as they seek out job opportunities. Students with disabilities may benefit from assistance in contacting specific employers or in learning to describe during interviews the accommodations they require in the workplace. Additionally, once on jobs, individuals with disabilities may require support (at least initially) as they adapt to their new environment and cope with the daily struggles of working and making new friends. Assistance in locating jobs and the delivery of follow-up services to students once they are on the job are therefore important components of career development projects for students with disabilities.

Four projects (Project STRIDE, Vocational Access, Project SMILE, and CADD) provided job placement and follow-up services to students after they completed their training or co-op placements. While the level and duration of job placement and follow-up services varied across the four projects, a factor common to all four projects was that the nature of the support and the way in which it was provided was based upon the student's wishes and needs.

Project STRIDE staff worked with existing staff at the Altoona Area Vocational Technical School, primarily the placement coordinator, to find employment for project participants. Follow-up services included consultation to students and employers for an initial one-year period; monthly evaluation forms in which employers were asked to rate the employee on job skills, self-management skills, and performance; contact with the employer and/or student to discuss unsatisfactory ratings on evaluation forms; periodic personal visits with students; and, the convening of two student support group meetings per year.

As they neared the completion of their vocational courses, Vocational Access participants were referred to Work Unlimited, a community-based job placement program. The student and the Work Unlimited staff participated in the job search together, and the student was expected to maintain weekly contact with Work Unlimited staff while job development activities were taking place. Work Unlimited staff, along with Vocational Rehabilitation staff, helped the student prepare for the job interview. Once the student was hired, Work Unlimited staff provided job-related counseling to the student and assisted the employer with any problems that arose. In some cases, Work Unlimited staff accompanied students to the workplace and provided on-the-job training. There was no time limit to this support.

Project SMILE participants were placed on jobs after completing their career training. Over a six-month period, Life Development Institute staff monitored the employee's progress and provided assistance (if needed) in the areas of stress management, problem solving techniques, and crisis intervention strategies. Assistance was also provided in financial planning to ensure that participants achieved the greatest degree of independence possible. These types of support were provided to the participants while they were working; however, they were not provided at the job site itself.

The business advisory council internship/job placement committee assisted in the job placement of CADD graduates. Job placement activities were initiated during the student's internship. If employment was not available at the company where the student was interning, or if the student rejected an offer that had been extended, CADD staff tried to locate available positions at other business advisory council sites or local companies. Once the student was employed, CADD staff monitored progress via phone calls, on-site visits, and reports. Follow-up activities consisted of the following:

- After 30 days on the job, CADD staff contacted the employee and the employer verbally and in writing to monitor the progress of the CADD graduate and give the employer and employee an opportunity to voice problems or concerns. Staff offered liaison support if requested.

- After 90 days, the CADD employee responded to a program placement survey that assessed training, job readiness skills, and job satisfaction.
- After 180 days, the employee was contacted and asked to verify job placement and satisfaction, and indicate whether any salary increases had been provided.

STUDENT SUPPORT SERVICES

At different stages of their education, many postsecondary students will require assistance with an academic, social, or personal concern. For some students with disabilities, these concerns may be related to the disability itself. For example, students may be unsure of when and how to discuss their disability with others. Or, they may experience difficulty in certain classes, due to their disability. Such issues may prevent students with disabilities from meeting their career-related goals. The projects that used career development strategies provided participants with access to a broad range of academic-related support services that helped students overcome such obstacles and reach their full career potential. These services included tutors, counseling, job clubs, skills classes, and technology.

Tutors

The different types of tutors used by students in projects identified as successful are described in-depth in Chapter 4, *Academic Support Services*. Tutors, whether they are paid professionals who staff tutoring labs or volunteers, assist students with disabilities by teaching or reinforcing the subject matter of courses with which students are having difficulty as well as providing instruction in the use of general test-taking strategies or study skills. Since students' career development is linked so closely to their academic success, any support that will help them improve their academic performance will naturally enhance their career development. Three projects (Co-workers as Trainers, Vocational Access, and Project STRIDE) that used career development strategies provided participants with access to tutors.

One of the goals of Co-workers as Trainers was to help participants advance to better jobs. In some instances participants could advance only after they had completed specific classes, or attained certificates, that were difficult for them. Tutors were provided in some of these situations, specifically to help students complete a high school diploma, take advantage of adult education classes, or complete vocational courses.

The tutorial lab was an important support service offered by Vocational Access. This lab, staffed by project employees with assistance from volunteer tutors and work study students who expressed interest in tutoring students with disabilities, served not only as a place where students received assistance in their vocational classes, but also as a place where staff could monitor students' progress and provide support in nonacademic matters. In the tutoring lab, project staff often learned about any difficulties students were having. If the problems were in an academic area, staff contacted the appropriate vocational instructors to discuss solutions to the problems.

Tutors were offered to Project STRIDE participants on an individual basis to help them obtain competencies in their chosen vocational training areas. Students also received two or more hours per week of individualized or group instruction to improve math or reading skills.

Counseling

Students with disabilities face unique challenges when making career-related decisions, such as deciding whether to disclose their disability to a potential employer, developing ways to talk about their disability while simultaneously presenting their abilities, and learning how to handle the pressures of finding and maintaining what may be their first job. Individual or group counseling, provided by professional counselors, teachers, or peers, may assist some students with disabilities as they struggle with these issues. Counseling was provided by six projects (Project STRIDE, Project CAREER, CAT, Project CLASS, Job Clubs, and Vocational Access). Counseling sessions focused on self-esteem, motivational issues, the clarification of career goals, and the identification of realistic career choices in light of the student's abilities and disabilities.

In four of the six projects (Job Clubs, Project STRIDE, Project CAREER, and Project CLASS), counseling occurred in group settings. The project director of Job Clubs said that the format of the job clubs was conducive to counseling. Through the peer counseling that took place during club meetings, students received support and guidance in finding and maintaining a job. In Project STRIDE, counseling primarily occurred in weekly group meetings that focused on work orientation, job search skills, and life skills. Project CAREER participants attended group counseling sessions in which they received assistance in matching their career interests and preferences to specific training opportunities, developed plans to pursue these training opportunities, and learned about the types of accommodations that could be made at their workplaces.

Two of the projects (Project CAREER and Project CLASS) that featured group counseling also provided participants with individual counseling. In the beginning of the term, participants in Project CAREER and Project CLASS met with a counselor who was a doctoral student in counseling. CAT and Vocational Access also offered individual counseling. Counseling for CAT participants was provided on campus primarily by counselors for students with disabilities and members of the project staff who were involved with student recruitment and the job search process. In Vocational Access, the majority of participants were Vocational Rehabilitation clients and therefore went through routine counseling with a Vocational Rehabilitation counselor. If project staff felt that more serious and underlying issues existed, they referred students to a mental health counselor or to the Counseling Center.

Across the six projects that featured counseling, the frequency of the meetings with counselors varied, based on individual need. The director of Projects CAREER and CLASS reported that 80-90 percent of project participants received one to two sessions and 40 percent received on-going counseling in weekly sessions. Vocational Access participants met with their Vocational Rehabilitation counselors monthly and also received support through the vocational tutoring lab, which operated four days per week. The project director of Vocational Access reported that a few students also received individual counseling from Work Unlimited staff for job-related issues once they were placed on jobs.

Job Clubs

Job clubs are non-threatening environments in which trained facilitators guide members in discussions about general concerns related to the job search and the idea of working. Once job club members begin working they can continue to attend meetings to receive support and guidance on issues related to job maintenance. In addition to providing a structured forum in which members receive group support, feedback, and encouragement as they persevere in their job search, job clubs operate with a specific curriculum that focuses on job seeking and job keeping skills.

Job Clubs were used by one project, Job Clubs, which was located at the Ohio State University's National Center for Research in Vocational Education (NCRVE). The development of the job clubs occurred in three phases. Activities during the first phase included selecting the sites for demonstration job clubs, identifying existing job club materials and adapting these materials for use by students with disabilities, and conducting an orientation workshop for representatives from the six selected sites who would serve as coordinators of the job clubs.

Most coordinators were staff at Offices of Disability Support Services on the different campuses.

Phase two was conducted on the campuses that were sites of the job clubs. NCRVE granted all six sites freedom in designing and operating the job clubs; however, the job clubs were required to address project objectives. Specific activities in the areas of providing training and information in basic job-seeking skills and approaches reported by the six job clubs included: pretesting and assessment of members' job seeking skills, training in job search strategies and practices, training in telephone skills for locating possible job openings and making appointments for interviews, training and assistance in preparing resumes and filling out job applications, practice in interviewing skills through mock interviews and feedback, and training in job-keeping skills. The implementation of these activities varied somewhat from site to site.

Phase three, which included evaluating the job clubs and disseminating the project's findings, was performed by NCRVE staff, based on information provided by the six job clubs. Based on this project's findings, the most effective aspects of the job clubs strategy, in addition to providing group support and feedback to members, included: 1) its emphasis on building self-esteem and positive attitudes in members, 2) its emphasis on self-empowerment, and 3) its emphasis on skills associated with conducting successful job searches.

Skills Classes

Skills classes are forums for exposing students with disabilities to various issues associated with the lifelong process of developing a career. Skills classes can provide instruction in general skills such as assertiveness or resolving conflict, or they can teach specific skills required in a certain work environment. They can take place in a lecture-based class, or on-site at a local business. Eight projects (Project SMILE, Project CAREER, Project CLASS, Co-workers as Trainers, Vocational Access, CADD, CAT, and STRIDE) offered skills classes to participants.

The majority of the projects provided participants with skills training in critical competency areas. Project STRIDE participants learned life coping and job seeking skills in a group setting. Project SMILE offered participants: 1) an affective skills training course (for academic credit) that focused on assertiveness, dealing with authority figures, eliminating self-defeating behaviors, and resolving workplace crises, 2) functional skills training including pre-job readiness skill development (resume organization, interviewing techniques, etc.) through

computer-assisted and hands-on experience, and 3) social skills training through a variety of social activities and field trips.

Both Project CAREER and Project CLASS offered participants career development courses. Curricula for the classes focused on the concept of work, different occupational categories, and job opportunities within these categories. Students participated in decision-making exercises and generated strategies to use in their own career development.

Co-workers as Trainers provided social skills training sessions and/or individualized counseling to those students who demonstrated aggressive behavior or inappropriate social skills. Social skills training was targeted to situations such as being teased, receiving criticism, initiating conversation, solving problems, arriving at work on time, and following time schedule rules.

The project staff of Vocational Access developed and conducted classes in learning strategies, affective skills, and job seeking strategies. It was hoped that instruction in learning strategies would enhance the students' performance in their vocational classes. Unfortunately, the time constraints imposed by their vocational classes prevented many students from enrolling in this class, as well as the affective skills and job seeking classes. Since project staff felt strongly that students needed instruction in these skills, portions of the classes were incorporated into the tutoring lab. Students were able to prepare resumes and discuss appropriate interview behavior during lab time.

At CADD, project staff developed a professional socialization curriculum consisting of three modules: transition to training, business preparation, and transition to employment. Skills related to employability and self-enhancement (such as job interviewing techniques and stress management) were presented and demonstrated, and the curriculum was customized to address disability issues and areas of concern for students. The training environment was designed to simulate a business environment. Business attire was mandated, attendance policies were set, and monthly evaluations were provided to simulate job performance evaluations. Guest lectures by members of the business advisory council and experts from the community provided substantive information on business-related topics. The lecturers also served as role models to the students. The students used time in this class to discuss problems they were having in classes and/or their daily lives.

CAT developed job readiness and employability programs with workshops on resume writing and effective interviewing. CAT also provided participants with the opportunity to enhance their overall well-being through a physical fitness program. This program was premised on the fact that many persons with disabilities are not physically fit, and this

condition can interfere with their ability to work a standard eight-hour day. Students were able to increase their strength, endurance, and overall health by taking advantage of the Fitness Center's specialized equipment and exercise program.

Technology

Two areas in which advances in technology have had a tremendous impact on the lives of individuals with disabilities are education and employment. Persons with disabilities are experiencing increased success in academic and business settings through using different types of technology, from personal computers to elaborate augmentive communication devices. While the use of technology was not a major focus of most of the projects that used career development strategies (with the exception of CADD, the full name of which is Computer Assisted Design for the Disabled), computers were used to enhance students' participation and performance in the classroom as well as their ability to compete in the working world.

Three projects (Project STRIDE, CAT, and Project SMILE) used computer-assisted career assessment and exploration programs that aimed to increase students' knowledge of occupations in which they had expressed interest. These activities were discussed in this chapter's section on career assessment. In three projects (Project CAREER, Project CLASS, and Project SMILE), participants used computer-assisted writing and learning programs. Project SMILE participants received a minimum of six hours per week (for 11 weeks) of computer-assisted instruction in a computer lab. Instruction was provided in a wide range of academic areas, including math, science, reading, computer education, and language skills, at levels ranging from kindergarten through GED preparation.

The director of Project CAREER and Project CLASS noted that students often required assistance while they were using computers for writing and/or learning. This project director strongly believes that support is necessary for successful use of computers in general.

Vocational Access staff enrolled project participants in a computer literacy training course that all students at the community college take, based upon their belief that students become more productive on any job through learning computer skills. Some of the students in Project CAREER were taught WordPerfect, based on this same line of thinking.

Technology is a valuable tool for individuals with disabilities to use in the workplace, where they have traditionally been underrepresented. As increasing numbers of students with disabilities enroll in, and succeed at, postsecondary institutions, often with the aid of committed individuals at the institution, academic support services, and summer transition

services, the career aspirations and achievements of such students will grow. Individuals with disabilities still do, however, face obstacles, many of them attitudinal, in developing their full career potential. Through establishing linkages, and providing access to career services, work experiences, and student support services, career development program staff can help students rise up to the challenges they may face.

SUMMARY

The strategies described in **Educating Students with Disabilities on Campus** are those which emerged as a result of the process used by the Advisory Panel of the *Successful Practices* study to identify main components of successful federally-funded projects in the area of postsecondary education and disability. These strategies fall under the four categories of institutional and community involvement, academic support services, summer transition to college, and career development. Taken together, strategies in these four categories comprise a comprehensive model of services to postsecondary students with disabilities.

The chapter on institutional and community involvement discusses strategies that project staff used to enlist the support of institutional leaders, faculty, and staff as well as community leaders from public, private, and service organizations in their efforts to provide the array of services necessary for the full participation of students with disabilities. Such outreach activities generated initial support for project activities and enhanced the likelihood that most aspects of these projects -- made possible with the federal grant for a limited period of time -- would be incorporated by the host institution as standard services and accommodations.

Many of the services and accommodations offered by projects identified as successful to students with disabilities fall under the category of academic support services. These services may be ones which permit programmatic access (504/ADA services), or they may be targeted toward personal student development (tutorial services, study skills instruction, and technology). Postsecondary students with disabilities who receive these services are more likely to be successful in their academic classes, and at the same time they are developing an understanding of ways in which accommodative services can help them to succeed in future jobs and careers.

Summer transition to college programs similar to those described in this document are also effective vehicles to equip students with the social and academic skills that are so important at the postsecondary level and beyond. When students are provided with the opportunity to receive guidance and engage in structured activities such as the ones featured by the projects described here, they enter the academic year with increased confidence and are more informed about what to expect during their college years.

Preparation for a career is a primary reason to pursue postsecondary education, and career development is thus an integral facet of this educational experience. The process of identifying one's career interests and searching for a job, however, is a challenging one. Career development program staff can guide students through this process by providing them with

appropriate instruction and hands-on experiences. Students will experience growth when they have access to career services, work experiences, and student support services, and when staff have conducted outreach activities in the community that result in an increased level of understanding of the career development needs of individuals with disabilities.

The strategies described here touch on most major aspects of educating students with disabilities on campus. As a result of these projects, not only were hundreds of students with disabilities helped to succeed on campus, but thousands of students at other campuses have also benefited from similar strategies. Since it is unlikely that an entire program can be replicated, readers are encouraged to identify individual strategies for implementation and contact project directors for more details. Readers may also wish to use this document as evidence that a particular strategy can be successful when seeking funds.

APPENDIX:
EXEMPLARY PRODUCTS ORDER FORM

NOW AVAILABLE: EXEMPLARY PRODUCTS

Educational Testing Service (ETS), with the HEATH Resource Center and the Association on Higher Education and Disability (AHEAD), has completed its work on the three-year (1990-1993) study entitled *Postsecondary Education Program: Evaluation and Dissemination of Successful Practices*. The study itself has ended, yet HEATH is continuing to disseminate its findings.

The *Successful Practices* study identified the following exemplary products developed by projects funded by the U. S. Department of Education in the area of postsecondary education and disability since 1980. **ORDERS FOR ALL PUBLICATIONS MUST BE PRE-PAID, BY EITHER CHECK OR MONEY ORDER.** Using the order form on page 4, indicate those items you would like to receive, complete the contact information, and enclose your check or money order.

_____ ***Educating Students with Disabilities on Campus: Strategies from Successful Projects. Price - $7.50***

While this publication is not an "exemplary product", it is a centerpiece of the *Successful Practices* study. Developed by HEATH staff, it contains information on the use of different strategies by projects which the *Successful Practices* study identified as successful. The strategies are grouped into four topical categories: Institutional and Community Involvement, Academic Support Services, Summer Transition to College, and Career Development. Among these four categories, there are more than 50 strategies.

All Disabilities/Student Focused

_____ **1.** ***A Description of the Pre-College Assessment Program. Price - $15.00.***

This "how to" manual was produced by the Pre-College Assessment Project, Wright State University (Dayton, OH). It describes in detail the activities of the program, which aimed to assist individuals with a wide range of physical and learning disabilities in planning realistically and preparing effectively for entry into postsecondary education, whether that be at a vocational/technical school, or a two-year or four-year college/university program. The manual contains many examples of the items used to identify each student's strengths and weaknesses.

Learning Disabilities/Student Focused

_____ **2.** ***A Study of Job Clubs for Two-Year College Students with Learning Disabilities. Price - $15.00.***

This report was created by the "Using Job Clubs to Assist in Transition to Work for Postsecondary Students with Disabilities" Project, Ohio State University (Columbus, OH). The report describes the results of a study of how job clubs help two-year college students with learning disabilities improve their job-seeking skills and work-world savvy in preparation for making a successful transition from school to work.

_____ **3.** ***Transition from School to Career: A Curriculum Developed to Facilitate the Transition from College to the Workplace for Students with Learning Disabilities. Price - $15.00.***

This curriculum was developed by Central Piedmont Community College in cooperation with the North Carolina Department of Community Colleges. It is comprised of lessons designed to provide

experiential activities to enhance classroom instruction in job preparation for community college students with learning disabilities. Sections focus on: career exploration, job seeking, professionalism, and job performance.

_____ 4. ***TAP into Success with Transitional Assistance for Postsecondary Students. Price - $15.00.***
This handbook describes the Transitional Assistance for Postsecondary Students (TAPS) Project at Amarillo College (Amarillo, TX), a program of specialized services, one-on-one instruction, counseling and equipment to help students with learning disabilities transition into college courses which lead to a certificate or degree and/or to transition into employment. The handbook contains copies of all forms used by the project.

_____ 5. ***Study Skills and Learning Strategies for Transition. Price - $15.00.***
Produced by the University Bound LD Students Transition Project of the University of Utah, Disabled Student Services (Salt Lake City, UT), the curriculum guide provides students with learning disabilities with information on the skills and strategies they will need to increase their level of success with the high school curriculum, to graduate with their senior class, to meet entrance requirements for the postgraduate school/college/university of their choice, and to be successful in the higher education environment.

_____ 6. ***College: A Viable Option (videotape). Price - $23.00.***
Also produced by the University Bound LD Students Transition Project of the University of Utah, Disabled Student Services (Salt Lake City, UT), this 20 minute videotape discusses what a learning disability is, learning strategies, and compensatory techniques. If features a number of successful University of Utah students with learning disabilities.

_____ 7. ***In Their Own Words (study guide and videotape). Price - $32.00.***
This product includes both a study guide and video developed by Project EXTRA (University of Minnesota.) In the video, five students with learning disabilities who made successful transitions from high school to a postsecondary setting share their experiences. Throughout the video, questions intended to spark discussion appear on the screen, and the viewer is instructed to pause and consult the study guide. The same questions are listed in the study guide with examples of sample responses, suggested resources, and other questions or information relevant to the question.

Learning Disabilities/Personnel Training

_____ 8. ***Service Operations Manual. Price - $15.00.***
This manual was developed by the Northern Illinois Postsecondary Education Project, Northern Illinois University (DeKalb, IL). The manual describes the system for delivering services to students with learning disabilities at community colleges. The seven key components of this technical assistance project include: 1) Legal foundations; 2) Needs assessment; 3) Technical assistance plans; 4) Transition plans; 5) Inservice training: awareness of learning disabilities; 6) Recommendations for service coordinators: staff development; and 7) Continuation of services.

_____ 9. ***Faculty Guidebook - Working with Students with Learning Disabilities at New River Community College. Price - $7.50.***

This guidebook was created by the Center for the Learning Disabled, Learning Achievement Program, New River Community College (Dublin, VA). The main body of the guidebook is a compilation of brief articles written by various faculty members of New River Community College. Among others, topics addressed include suggestions for teaching general academic subjects, options for instruction in the social sciences, and strategies and suggestions for mathematics and data processing teachers, secretarial and related subjects, drafting technologies, and electrical/electronic technologies.

_____ 10. ***Six Training Manuals from the Technical Assistance for Postsecondary Education (TAPE) Project. Price - $50.00.***

Produced by Northern Illinois University (DeKalb, IL), the manuals are designed to train community college personnel who work with individuals with learning disabilities. The topics of the manuals include specific intervention strategies, reading and written language, mathematics, counseling, and service networking.

_____ 11. ***A Guide for Delivering Faculty Inservice on the Learning Disabled College Student. Price - $15.00.***

Produced by the LD-Talents Project at the University of Nebraska (Lincoln, NE), the guide focuses on providing faculty inservice and training on how to work with students with learning disabilities. It provides information on planning, implementing, and evaluating the inservice session; federal laws; characteristics of students with learning disabilities and accommodations that can be made for them.

Other Disabilities/Personnel Training

_____ 12. ***IMPACT on Preservice Training: A Teacher Training Handbook. Price - $10.00.***

This handbook was developed by Project IMPACT (Instructional Methods for Promoting Academic and Career Training), located at Central Area Vocational Technical School (Drumright, OK.) The project provided support to youth and adults with a range of mild disabilities as they transitioned to, and enrolled in, the vocational and technical education program. Sections of the handbook, which is targeted toward vocational and special educators, include: components of the program; assessment and referral process; strategies for adapting materials; materials modifications and, software and how it can help.

Training Personnel to Assist with Activities of Daily Living

_____ 13. ***Two Curriculum Texts and two Instructor's Guides. Price - $60.00.***

From the Adult Human Services Curriculum Project at the Shriver Center (Waltham, MA), the two student texts and two instructor's guides are designed to prepare students with severe learning disabilities for careers as paraprofessionals in the adult human service field.

ORDER FORM

Check the products requested, enclose check or money order and return to: Exemplary Products, HEATH Resource Center, One Dupont Circle, Suite 800, Washington, DC 20036-1193.

_____ A Description of the Pre-College Assessment Program. *$15.00.*

_____ A Study of Job Clubs for Two-Year College Students with Learning Disabilities. *$15.00.*

_____ Transition from School to Career: A Curriculum Developed to Facilitate the Transition from College to the Workplace for Students with Learning Disabilities. *$15.00.*

_____ TAP into Success with Transitional Assistance for Postsecondary Students. *$15.00.*

_____ Study Skills and Learning Strategies for Transition. *$15.00.*

_____ College: A Viable Option (videotape). *$23.00.*

_____ In Their Own Words (study guide and videotape). *$32.00.*

_____ Service Operations Manual. *$15.00.*

_____ Faculty Guidebook - Working with Students at New River Community College. *$7.50.*

_____ Six Training Manuals from the Technical Assistance for Postsecondary Education (TAPE) Project. *$50.00.*

_____ A Guide for Delivering Faculty Inservice on the Learning Disabled College Student. *$15.00.*

_____ IMPACT on Preservice Training: A Teacher Training Handbook. *$10.00.*

_____ Two Curriculum Texts and two Instructors' Guides. *$60.00.*

_____ Educating Students with Disabilities on Campus: Strategies from Successful Practices. $7.50.

Name_____

Title_____

Institution_____

Address _____

City/State/Zip _____

Telephone Number _____

Exemplary products available directly from the source:

The Postsecondary Learning Disabilities Primer

The manual, produced by the Learning Disabilities Training Project at Western Carolina University (Cullowhee, NC), is a single resource about post-high school training for students with learning disabilities. It discusses transition from high school to postsecondary education; institutional considerations in LD policy and programming; academic concerns and accommodations; social skills, academic advising, and counseling issues and concerns; faculty and staff training; and career choices and job skills.

The Postsecondary Learning Disabilities Primer is available for $20.50 from the WCU Bookstore, Western Carolina University, Cullowhee, NC 28723. (704) 227-7346. Enclose check payable to *WCU Bookstore.*

Social Skills for the World of Work and Beyond* and *Gateways to the Working World

These two curricula, produced by the National Center for Disability Services (previously known as Human Resources Center), are intended for use by professionals working with college students with learning disabilities. *Social Skills for the World of Work and Beyond* was designed to promote social skills development and *Gateways to the Working World* was developed to foster career planning and job seeking skills. Each curriculum consists of module units and was created and pilot-tested within the framework of a three-credit college course.

The two curricula can be obtained from SPECIAL REHABILITATION PROJECTS, National Center for Disability Services, 201 I. U. Willets Road, Albertson, NY 11507. (516) 747-5400. The price of individual curricula is $22.50, or both can be obtained for the special purchase price of $40.00. Enclose a check or company purchase order made payable to SPECIAL REHABILITATION PROJECTS.

Another Chance - The Comprehensive Learning Program for Adults with Learning Disabilities

Another Chance is an account of a model program designed to meet the educational needs of adults whose learning disabilities resulted in a substantial handicap to employment. Housed at Fordham University, the project implemented an integrated program of tutoring, vocational counseling, and social work services. *Another Chance* also discusses how the program recruited, trained, and supervised a corps of tutors among adult students enrolled in Fordham's College at 60.

Another Chance is available for $13.50 plus 10% postage/handling from LDA (Learning Disabilities Association), LITERARY DEPOSITORY, 4156 Library Road, Pittsburgh, PA 15234. (412) 341-1515. All orders must be prepaid, and no refunds are granted.

Put That Person to Work! - A Manual for Implementors Using the Co-Worker Transition model, Put That Person to Work! - A Co-Worker Training Manual for the Co-Worker Transition Model

These documents, and two accompanying videotapes are products of the "Demonstration Project for Teaching Entry-level Job Skills to Youth with Mild and Moderate Handicaps by Employing Co-Workers as Trainers," Utah State University (Logan, Utah). These products are written for employers of persons with mental retardation or developmental disabilities in supported employment settings.

The manuals and videotapes are available from Outreach, Development, and Dissemination; Center for Persons with Disabilities; Utah State University; Logan, Utah 84322-6805. (801) 750-1991. The cost for the complete Co-Worker Training Program (two manuals and two videotapes) is $85.00. The two manuals may be purchased for $15.00, and the two videotapes for $70.00. These prices do not include postage and handling.

Handbook for Volunteer Tutors

This handbook was developed by Project SUCCESS, Richland College (Dallas, TX). It is filled with tips for both students and tutors, as well as materials to increase awareness and understanding of learning disabilities.

The handbook is available for $25.00 prepaid, from Anne Straley, Richland College, Special Services, 12800 Abrams Road, Dallas, TX 75214-2199. (214) 238-6372.

Tools for Transition

This curriculum package, developed by the LD Transition Project at the University of Minnesota, is designed for use with high school juniors and seniors as well as students in transitional programs or community colleges. It assists students with learning disabilities to assess their learning styles, interests,

and career goals. The complete curriculum package includes a Teacher's Guide, Student Handbook, videotape, and supporting activities materials.

The curriculum package is available for $105.00 plus 9% postage/handling from American Guidance Service (AGS), 4201 Woodland Road, Circle Pines, MN 55014-1796. Outside of Minnesota, (800) 328-2560. In Minnesota, (800) 247-5053.

HEATH Resource Center

The HEATH Resource Center operates the national clearinghouse on postsecondary education for individuals with disabilities as a program of the American Council on Education. Support from the United States Department of Education enables the Center to serve as an information exchange about educational support services, policies, procedures, adaptations, and opportunities on American campuses, vocational-technical schools, adult education programs, independent living centers, and other training entities after high school. The Center gathers and disseminates this information so that people with disabilities, if they choose, can develop their full potential through postsecondary education and training.

The HEATH Resource Center can be reached at One Dupont Circle, Suite 800, Washington, DC 20036-1193. In the Washington, DC Metropolitan Area (202) 939-9320; outside the Washington, DC Area toll-free (800) 544-3284—both numbers are Voice/TT.

AHEAD

The Association on Higher Education and Disability (AHEAD) is an international, multicultural organization of professionals working to achieve full participation in higher education for persons with disabilities. The Association is a vital resource promoting excellence through education, communication, and training. Since its beginning (as AHSSPPE) in 1978 its membership has grown to over 1400 individuals from more than 900 institutions. AHEAD has sponsored numerous workshops and conferences which have focused on common problems and solutions for upgrading the quality of services available for students with disabilities in postsecondary institutions. The Association can be contacted at AHEAD, PO Box 21192, Columbus, OH 43221-0192. (614) 488-4972. (Voice/TT).

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